DOCUMENT RESUME

ED 310 759 IR 013 962

TITLE PSSC's Year of Distance Learning. Proceedings from PSSC's 1988 Member Audiobriefings (Washington, D.C., January 13, March 16, May 18, July 13, September 13, November 16, 1988).

INSTITUTION Public Service Satellite Consortium, Washington, D.C.

PUB DATE 89

NOTE 139p.

PUB TYPE Collected Works - Conference Proceedings (021) -- Viewpoints (120) -- Reports - Descriptive (141)

EDRS PRICE MF01/PC06 Plus Postage.

DESCRIPTORS Cost Effectiveness; *Distance Education; *Economic Factors; *Educational Innovation; *Evaluation Methods; Formative Evaluation; *International Programs; Professional Development; Summative Evaluation; Technical Assistance; *Technological Advancement; Telecommunications; Teleconferencing

IDENTIFIERS *Public Service Satellite Consortium DC

ABSTRACT

The proceedings from six Public Service Satellite Consortium audioconferences conducted in 1988 provide information on preparing teachers and students for teaching and learning at a distance; costs and benefits of distance education; secrets to success and pitfalls to avoid; technological innovations; international trends; and methods for evaluating distance education programs. An introduction and transcriptions of six audioconferences involving prominent personalities in the field of distance education comprise this document. Titles and dates of the audioconferences are: (1) "Training To Teach at a Distance" (January 13); (2) "Strategies for Learning at a Distance" (March 16); (3) "The Economics of Distance Learning: Business or Social Service?" (May 18); (4) "Technological Invention and Educational Innovation: Conflicting Perceptions" (July 13); (5) "International Trends in Distance Learning" (September 13); and (6) "Distance Learning: The Final Exam" (November 16). (GL)

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PSSC's Year of Distance Learning

Proceedings from PSSC's 1988 Member Audiobriefings

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The Public Service Satellite Consortium

Washington, DC

1989

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Introduction

Distance learning by definition is not new to the Public Service Satellite Consortium (PSSC). Our initial thrust back in the 70's was to assist colleges, universities, hospitals, libraries, state agencies and other public service institutions to use satellite technology, primarily in ad hoc videoconferencing. It just wasn't being labeled as "distance learning" yet. Although our role has changed somewhat, and we are no longer actively providing operational and technical support for teleconferencing, we remain committed to the use of telecommunications technology, both satellite and other, to enable nonprofit groups to actively pursue their diverse goals in serving the public. In this role, distance learning systems and services have surfaced as one of our principal areas of concentration.

With this in mind, we chose 1988 as the Year of Distance Learning and organized our membership activities around it. We feel that whether our members are using telecommunications technology to provide traditional, curricular distance learning courses, continuing professional education, or enrichment courses, all of these activities represent distance teaching and learning.

We have attempted to address a variety of issues and concerns related to all types of distance learning, and hope that we have succeeded. The proceedings from our six audioconferences provide a wealth of information on preparing teachers and students for teaching and learning at a distance; costs and benefits of distance learning; secrets to success and pitfalls to avoid; and, of course, how to determine success and failure in distance learning programs.

These proceedings represent the combined knowledge and experience of many of the prominent personalities in the distance learning field. We are fortunate to have so many of them represented among our membership, and appreciate their willingness to share their expertise as discussion leaders.

I also wish to acknowledge the efforts of PSSC staff who moderated the sessions, provided the audioconferencing bridge service, transcribed the tapes, and edited them into this compilation.

Louis Bransford
President, PSSC

"Training To Teach At A Distance"

A PSSC Member Audiobriefing

January 13, 1988

Doug Widner: Welcome to PSSC's Year of Distance Learning. This will be the first in a series of six member audio briefings on that theme. When everyone who reserved a line for today's member audiobriefing is aboard, we will have about 44 lines connected. I understand some of you are patching your line into your own bridges to further extend this discussion. We're estimating between 50 and 65 participants in all. Obviously, distance learning is a popular theme!

We need to define *our* use of the term "distance learning." We mean teaching/learning communication that is live, or in real time, and uses audio, audio and graphic, or audio and video technologies to bridge a geographic gap between the teacher and the learner. The operant terms here are live, audio, and/or graphic, and/or video. There is one exception that we are inclined to make. One non-audio, non-video, non-live technology that we will keep in mind today and throughout the year, is computer conferencing. The exchange of electronic, written messages in an orderly fashion, with the intention to impart knowledge over a given period of time is, in our opinion, a distance learning technology, even though no video or audio is used and the messages aren't sent and received in real time, but in a store-and-forward manner. Well, enough on definitions.

We have decided to make distance learning the focal point of our member activities this year for two main reasons:

One, the telecommunications industry has acknowledged that distance learning is one of the most important applications of its products and services. Perhaps the best signal sent so far was the coordination of a distance learning conference in concert with Telecon VII, the largest trade show for teleconferencing, last Fall. The distance learning sessions drew as many, if not more people than the more generic teleconferencing sessions at this combined conference. Vendors and users alike seemed highly atuned to the potentials and pitfalls of using teleconferencing for distance learning.

Two, we believe the goals, objectives, and principles that apply to training through distance learning technologies pervade almost all visual and aural telecommunicating, regardless of whether or not we call the application *training* or *education*. If we are using videoconferencing to compel a client to buy our product; or to argue our point of view on an issue—if we are using audioconferencing for a member briefing, a committee meeting, or to review progress on a team project—in all of these cases and most others that come to mind, analogues to training and learning, giving and taking, exist. For this reason, devoting a year of our

member activities to the theme of distance learning promises to be beneficial to all PSSC members, in and out of academe, associated or disassociated with training and education.

I mentioned a moment ago that this is the first in a series of six audiobriefings on distance learning. Very quickly—you don't have to take notes, now—the other five will be "Strategies for Learning at a Distance," "Economics of Distance Learning," "Conflicting Perceptions of Technological Invention and Educational Innovation," "International Trends in Distance Learning," and a full briefing on evaluating the effectiveness of distance learning programs. This schedule was included in your last *Report To Members*. If you don't have it and want it, call us later and we'll send it to you.

Obviously, one of the messages here is that we cannot cover the issue today.

One word of caution. Because today's briefing kicks off our whole year, we have accepted a great many more lines than we may be able to for future briefings. We encourage you to sign up early. You can call us and reserve your lines as early as tomorrow. The number to call is 202-863-0890.

A brief word on how we'll handle today's briefing. We have two invited discussion leaders that I will be introducing in just a moment. As we move through today's agenda, I will be addressing specific questions to them and, periodically, I will ask questions of the rest of you as a group, or specifically, I may call on you by name. Because we have so many lines and so many people participating, I must ask you to hold your questions and comments until I specifically ask for them. When you *do* speak, please begin with your name and affiliation—*every time you talk*. There are so many of us today we simply will not be able to keep each other straight on voice recognition alone. I will be a strict taskmaster when it comes to time. We will get through our agenda by 5:30 Eastern Time.

So you know where we are going, after I introduce our discussion leaders we'll spend no more than 20 minutes on the broad, fundamental issue, of *why* it is necessary to train people to teach using distance learning technologies. After we've argued that point through, we'll have a general question, answer, and further comment period. Then we'll spend 30 to 40 minutes reviewing *methods and practices* used to train teachers to teach at a distance. This is the part where you members consort, and we expect to hear from lots of you. We'll wind up the program with a final general discussion on *evaluating the effectiveness* of efforts to train teachers to use distance learning technologies.

All right. It's time to introduce our guest discussion leaders. Dr. Sally Johnstone is Director of Instructional Telecommunications at the University of Maryland, University College. University College has been a leader in reaching non- traditional students for over 40 years. In addition to a decade of teaching experience, Sally has been applying her academic training in cognitive psychology to the development of tools to help instructors and students fully utilize distance learning technologies. Sally, thank you for agreeing to lend us your insight and help out with today's discussion.

Sally Johnstone: You're quite welcome. I expect to learn a great deal as well from the other participants.

Doug Widner : Dr. Charles F. Urbanowicz is Associate Dean for Regional and Continuing Education at California State University-Chico. As many of you know, since 1975 Chico State has been very involved in programming an Instructional Television Fixed Service network in Northern California. Since 1984, the university has been offering an MS degree in computer science live via satellite to corporate clients across North America. Charlie is very involved in all aspects of distance education at Chico State. Chico State currently generates about 70 hours per week of live televised instruction. Charlie, thanks for joining us from sunny California.

Charlie Urbanowicz : Thank you, Doug, for inviting me. It's rainy out.

Doug Widner: Okay. Let's move right into our discussion of why train teachers to teach via telecommunications.

Sally, you first. Tell us why, in your opinion, it is important to train instructors before they try to teach using distance learning technology.

Sally Johnstone: I'd like to speak primarily from the viewpoint of someone working from within the college environment, but I think that this applies as well to individuals who are in a more corporate setting or more traditional training environment. Very typically, using the college example, the average teacher who is teaching a particular subject — maybe their specialty is statistics or some kind of engineering, whatever—has probably not had a great deal of experience in learning how to teach except for what they learned from their teachers in school. For that reason, what we're dealing with is a pool of individuals who are perhaps okay in a traditional classroom but, as soon as we put them into a new environment, they may not have the knowledge base, if you will, to know how to translate their traditional skills.

I think that one of the things that's terrifically important is to help that instructor understand that this is a very different environment, both for the learner and the instructor. My argument is that we need to go beyond just helping the instructor cope with the special demands of the studio, or translate his chalkboard graphics into something that will work on TV; we need to move further along the lines of actually helping him translate his course into a distance education course that is applicable to whatever technology is being used. I'll end my statement there and let Charlie talk.

Doug Widner : Thank you, Sally. I think one of the important things you said, although all of it was important, came at the end when you said "translate the course." I think that's something we'll come back to a lot today.

Charlie, why do you think we need to train teachers to use distance learning technology?

Charlie Urbanowicz : I agree totally with Sally. We need to train teachers because we are introducing

them to a new environment that many of them may not be familiar with. This is the television age and everybody is familiar with television, but it's one thing to be watching and quite another to be in front of a camera sending information.

The argument that I'd like to make, though, is that sometimes you can't make a silk purse out of a sow's ear. There's no amount of training that's going to make a bad teacher a better teacher on television. You can train someone for weeks or months, or, like at Chico, we train someone for a couple of hours to introduce them to the new environment and then they're on their own. You have to start with good people, good content, before you can get into any sort of training session.

It is a new environment. It is something new they have to learn to deal with, but it can be done. We are doing it and lots of other institutions are doing it, so training is important and it can be done.

Doug Widner : Charlie, would you say that you teach your teachers to ignore the technology or to manipulate it?

Charlie Urbanowicz : We try to make the technology transparent to them. This is a key thing for all the listeners, or for anyone who owns origination rooms. We at Chico State do not come out of a color studio. We come out of a classroom much like Stanford has or Maryland has. It's a traditional university classroom with university seats and the cameras hidden away in obscure little spots to pick up the instructor. We try to make the technology as transparent as possible.

Doug Widner : Sally, what was that line you and I had come up with about transparent?

Sally Johnstone : I think it was that while the technology may be transparent, it's *not* non-existent.

Doug Widner : Let me ask either of you two questions before we turn the discussion over to our participants. Isn't it incumbent on the distance learning technologist—that is, the guy who develops the technology—to develop tools that are transparent to the teacher?

Sally Johnstone : I'll take that one if Charlie doesn't want to, or if Charlie doesn't want to go first.

Charlie Urbanowicz : Go ahead.

Sally Johnstone: Okay. Doug, you and I had talked about this a bit. I think that you're right in a sense, that the person designing the teaching environment, the studio environment if you will, if it's to be a television teaching environment, needs to go ahead and make that environment as "transparent" as possible to the individual teacher. However, as Charlie just mentioned, we at Maryland have a very simple environment in which the instructor operates. There is a regular "white board" that is used like a chalkboard. They can use all kinds of things that they would in a normal classroom and, in fact, the classroom looks like a normal classroom in many ways; however—and

here's the point—before we began trying to do any formalized training with any of the instructors, when they would just walk in, familiarize themselves with the equipment and use it, we found that the students were still relatively unhappy. They registered a lot of different kinds of complaints. Sometimes rather strange ones that, when we investigated by interviews with these students, we saw stemmed from the instructor's not being fully aware of the implications of his or her use of the technology. In other words, they were assuming it was *just like* a classroom and they did *not* have to modify their teaching behaviors and techniques. For example, they would have no concern for where they put information on the whiteboard, or how. They also didn't effectively modify the ways in which they used interaction in that environment.

We found that even though the technology was "transparent" in a traditional sense, it still existed and the instructors still needed to pay attention to it.

Charlie Urbanowicz : Let me jump in on that and build on that. The key thing to understand from my perspective, as an individual speaking for Chico State, is that it is not only the instructor in the classroom but the camera operator who is acting as the eyes and ears of the student out there. Sometimes you have to give more training to the camera operator than to the instructor.

Here at Chico we have a four-camera operation and one person handles all four cameras simultaneously. Over a 16-week semester, that camera person learns how to read the body language, pacing and timing of the instructor.

Yes, the instructor has to adapt to the room and modify his presentation; but that camera operator has to be trained as well. You just can't plunk someone off the street, or a student, or an intern, into that job. You have to have a professional or quasi-professional who knows how to handle cameras and sound because he's in television. He needs to know how to guide the instructor gently away from bad habits and toward good ones.

You need a training session at the beginning of the class for both the instructor and the operator and then it's the operator who works at, I guess, training the instructor, throughout the semester.

Let me say one thing, though. Teaching over television is not difficult. It can be done. I hate to see private or third party groups come up with packages costing thousands of dollars that say, "Hey, Joe, this will tell you how to teach over television and you will be wonderful," and then saturate the market with this stuff for the next couple of years. It's not necessary. You need some tender hand-holding; you need some good printed and non-printed material. Sally has an excellent videotape out on teaching over television, we have some printed materials —you don't have to get a lot of jazz and glitz into getting the instructors and the operator to teach over television.

Doug Widner : Let me interrupt you there, Charlie. You're getting into the "how," which we'll come back to in just a few moments, and that's fine, it's a natural segue. But let me pause here and bring in a few people from our

membership out there who, I'm sure, have a little different slant on whether or not training is required and if it is, why. Let me ask first if David McIntosh from Colorado Video is listening. Are you out there, Dave?

David McIntosh : Yes I am, good afternoon.

Doug Widner: Good afternoon David. We have been focusing so far on live applications of instructional television and you represent one of the world's leading companies in the production of slowscan or freeze frame video which, as anybody who has experienced it knows, is not at all like full-motion video or instructional television as we have come to know it. Yet I know from personal involvement as do some of the other members participating today that it is used, and quite effectively, as a distance learning technology. What do you say, as a manufacturer, about the necessity to have your teachers trained in the use of your equipment as a piece of hardware and methodologically?

David McIntosh : I have to agree with the comments that have been made already and reinforce that some adjustment is necessary in the teaching process. Freeze frame requires an adjustment and can be looked at from the perspective of the slide show presentation with the advantage, in distance learning, of being an interactive tool. My statement would be that the best investment might be in a support person so that the teacher can use the technology more transparently.

Doug Widner : Sally or Charlie, do you want to respond to that?

Sally Johnstone: I'll take it real quickly. I think this becomes a pragmatic issue. You have made a very good point. Literally dealing with the cost of putting on courses, you have to keep in mind that the instructor in the college environment has traditionally not only been the content expert but also the instructional designer. When we get into doing interactive videodisc, which is something that one of our groups here does, we in fact do use the instructor strictly as the content expert and we have professional instructional designers who then take that instructor's material and translate it into this rather complex system that is involved in building the videodisc.

But when we're talking about multiple classes delivered day-in day-out for long periods of time, it becomes very difficult to supply instructional designers for every class session and instructor. It becomes a pragmatic issue of just having to rely on the instructor's ability to learn to deal with the new technologies and design their courses appropriately.

Doug Widner : Charlie, do you have any comments?

Charlie Urbanowicz : No.

Doug Widner : Before we run away from slowscan, David, because I think that's a fascinating area, we do have with us, I believe, one person who has had some relatively recent experience. I'm speaking of New York University. I believe we have Kevin Drumm on the line. Kevin, are you with us?

Kevin Drumm : Ah, yes I am.

Doug Widner : Kevin, how are you?

Kevin Drumm : I'm just fine. We're waiting for the Montreal Express to hit New York.

Doug Widner : Before it does, can you tell us something about New York University's slowscan classes with Puerto Rico? Did you find that it was necessary to spend any amount of time training the instructor of that class to use the equipment and work it into his curriculum, or, as Sally said earlier, to translate his course?

Kevin Drumm: In that it was Deane Bornheimer and he had some experience with that, no. However, we are working with a brand new professor who will be teaching another course this spring and we are going to have to spend some time training him. We would not run the course without a separate operator, however. He just would not be able to do it alone. He is very animated and dynamic and I'm sure he would *refuse* if he had to operate the equipment. But he does want to become familiar with how it will operate.

What I found in a course that I participated in a year ago was that you had to train the students not to be afraid of the microphone and to pipe up when they had a question. To this day I have been involved with students who will not press down the bar and speak over the microphone.

Doug Widner : Thank you Kevin. Let me interrupt to point out that some of you out there are using speakerphones with open mics. If you can mute them you ought to because we can periodically hear you talking in the background.

Sally Johnstone : Can I make a comment on Kevin's comment?

Doug Widner : You sure may.

Sally Johnstone: Kevin, I think that a lot of different people have experienced the same problem; that is, the student being unable, unwilling or nervous about using the interactive element with either slowscan or with full-motion video. I think that's something that Doug had mentioned might be discussed in a later audioconference. At least I'm hoping so, because it's a problem we have been working on and we have developed some training for students to help them use this technology.

Doug Widner : Thank you, Sally. There are a couple of other people I note on my roster that should be on-line with us and might be able to address to this issue of why train teachers to teach, but from a non-academic perspective. The two people I'm thinking about: one is from the American Law Institute-American Bar Association, Susan O'Connor, and the other is Kay Leonard from Beach Associates. Let me begin with Susan. Are you with us?

Susan O'Connor : Yes I am.

Doug Widner : Thanks for calling in today. Let me take the liberty of putting words in your mouth for a moment. The American Law Institute-American Bar Association Committee on Continuing

Professional Education was among the first, if not *the* first, purveyor of continuing legal education via satellite.

Susan O'Connor : That's correct.

Doug Widner : Since then they have spearheaded another entity called the American Law Network which is serving how many network nodes now, Susan?

Susan O'Connor: We have approximately 50, coast to coast.

Doug Widner : The interesting thing about your network and your type of training that is different from what we've been talking about so far, is that it is non-curricular continuing legal education. It contributes to the certifiability, I suppose, and I don't mean that in a psychiatric sense, of attorneys, but it does not contribute to degrees or anything like that. Am I correct, Susan?

Susan O'Connor: Yes, except in many states that have mandatory continuing legal education requirements, attorneys may receive credit for attending our courses.

Doug Widner : Let me ask you the pointed question, first. Do you take any time training the people who appear on your continuing legal education programs?

Susan O'Connor: Yes, but not as much as we might. We do have a training tape that's called "Getting the Picture," that gives some examples of how the faculty might use audiovisual materials and how to behave in front of the camera.

Doug Widner: Before we leave that, is that a proprietary tape?

Susan O'Connor: Yes it is.

Doug Widner : Okay. Too bad. Do you call it training or do you call it coaching?

Susan O'Connor: "Coaching" is even a little too strong. We are afraid that to call it training might scare away the teachers who give up their time to do these courses.

Doug Widner : That's a very good point and that is an issue we'll be bringing up in a future audioconference. Let me ask you just one more question and then I'll stop picking on you, Susan. If I remember correctly, your courses are produced with full studio crews or at least as many people as you need to equip a conventional TV studio, and they are produced in front of an in-studio audience. Is that still the case?

Susan O'Connor: At this time, no. For the last two or three years we have been producing without an in-studio audience.

Doug Widner : And that hasn't changed the need for some increased level of coaching?

Susan O'Connor: It has changed the focus in that the teachers have to depend

on one another to keep the program lively and interesting.

Doug Widner : Thank you, Susan. Kay Leonard from Beach Associates, are you with us?

Kay Leonard : I'm here.

Doug Widner : Thanks for dialing in. Kay represents a company in Northern Virginia that has probably done as many if not more videoconferences via satellite in a training mode than any other production company that I am aware of. I know, Kay—so I'll put words in your mouth, too—that Beach Associates puts a high value on coaching and presenter preparation. Based on what you've heard so far, would you go so far as to call that "training" in our context?

Kay Leonard : I would definitely call it training, although the term we use with the clients and the client's talent is "coaching." We have seen that it can make a pretty big difference in the end product. For example, one of our clients and one of your members, the National Rural Electric Cooperative: Their events are not extremely expensive from a production viewpoint, but they spend money up front in coaching the people who are on air and it makes a huge difference. It's easy to see the difference between someone when they first come through our door at the beginning of the day and when they leave at the end of the day. Their end product is a lot easier for someone to watch because they have finally relaxed.

For those who do not get the coaching and go in kind of cold turkey, maybe all they get is a rehearsal, it takes almost to the middle of the videoconference before they become comfortable enough to ease the tension that they communicate. As viewers, we'll focus on the nervousness before we focus on the content, what the nervous person is saying.

This is quite different from the college environment, though, and I really see a difference in this conversation between teachers in college classrooms and the ad hoc training videoconferences that we do. The repetition in the college course, weekly or twice weekly or what have you, makes that experience a lot different than the one-shot videoconference. We coach for the one-shot effort.

Charlie Urbanowicz: Hey, Doug. This is Charlie chiming in again. Kay's absolutely correct. Colleges and universities have an advantage in our daily basis routine. But regarding repeat business, some of the stuff that the corporate private networks are putting out is quite exciting. Some of you may have had a chance to see the teleconference that Pat Portway pulled together that featured, among other, Tandem Computer corporation and their "First Friday" shows.

I imagine that when "First Friday" began with Tandem Corporation it was rather dull, but it's pretty exciting stuff now. They do it the first Friday of every month. With repetition you start getting quality.

Universities do have that advantage over ad hoc teleconferences.

Doug Widner : Thanks for pointing that out. Speaking of universities, we have a number of them with us today and I think it's time we opened up the conference and heard from some of our participants that I haven't picked on so far.

What we're interested in at this point in today's briefing is your examples of why teachers need to be trained, or why they don't need to be.

Please address your comments to me....

Do we have Joan Milczarski from the American Management Association on the line?

Joan Milczarski : Hi Doug, I'm here.

Doug Widner: You and I are living testament to the necessity to train teachers, aren't we?

Joan Milczarski : Absolutely, with our experience with Seminars by Satellite. I have to confess, I've never thought too much before about putting them into a classroom environment. I know we tried it a similar way with the first program we ran and found that because our instructors were used to operating in that environment that the live audience distracted them. They were torn between looking at the camera and looking at the audience. So in our subsequent programs we dropped the studio audience and I think that sometimes it's a problem because of the lack of spontaneity. But at the same time it helps the instructors to concentrate and to improve their own performances over a period of time. This, I think, we certainly saw happening.

Doug Widner : I concur with you completely. In listening to Charlie and Sally and others talk about the necessity to train teachers in the distance learning that goes on at the universities, versus the training or coaching that Susan O'Connor of ALI-ABA and Kay Leonard of Beach Associates talked about, it seems to me that Seminars by Satellite falls in the middle. We found it necessary to get our instructors to re-look at their material, to "translate their courses" as Sally put it earlier, but at the same time, we certainly needed the coaching and the training aspect of standing up in front of a camera and doing it that Kay was talking about.

Joan Milczarski : Right. And I think what also made it more difficult for our people was that not all of them were experienced in reading the teleprompter before they came on our programs. For various reasons we wanted, basically, the entire program to be scripted. So not only did they have to develop the material as scripts, they had to deal with the teleprompter, which for some is a big stumbling block. I'm not sure that same kind of thing happens in the university environment. Can somebody respond to that?

Charlie Urbanowicz : In our university environment the class is unscripted except for whatever notes to himself or herself the professor has written. They do not use a teleprompter. They have eye contact with the students in the classroom and periodically make eye contact with the camera.

Sally Johnstone : Same is true here. It is quite a trick, by the way, to help a faculty member begin to not ignore the studio participants while remembering the students out there in TV land and to pay attention to both.

Charlie Urbanowicz : One of the tricks of the trade that we've developed is that when a student in the field calls into the Chico classroom, a buzzer or a light lights up in the back of the classroom right at the TV camera that the instructor can be picked up on. So the instructor's head goes up to the back of the room to check out the light—as opposed to a phone ringing on the desk or a voice coming amorphously into the room. As a result, by habit, the instructor looks to the back of the classroom and up at the camera.

Joan Milczarski : Don't you find, though, that most of the time they're actually looking at the studio audience rather than at the camera? That's been my experience when their attention has been split.

Charlie Urbanowicz : It's hard to say. We pump out about 70 hours of instruction a week. At the beginning of the semester I look at it for a couple of hours but I don't really follow the classes or the teachers. At this university the instructor is the god of the classroom. He or she can do essentially whatever he or she likes within certain parameters. If the instructor is continuously looking at the classroom students we can suggest that they occasionally look at the camera, at the outside audience, but we don't monitor it. They're on their own. So we cross our fingers and hope it goes for the best.

Sally Johnstone : Let me put this in percentages. I bet that 60% of faculty members who are teaching in our systems don't look on a regular basis at either audience, in classroom or through cameras. What they're doing is paying attention to the material, which is why the people are taking the course anyway.

Kay Leonard : I'd say that the inherent difference there, between the college atmosphere and what you face, Joan, at AMA, is that the reasons for being in the audience are slightly different. Again, college has that advantage that they are going to be there the following week. If you are in a college classroom nowadays you could be one of one- or two-hundred people in that classroom. That teacher is not looking you in the eye anyway, which is what you appear to be seeing when they look at the camera lens. I would not think that the distant students feel too much of a lack when the teacher isn't looking at them through the camera, because they're not accustomed to being looked at anyway. It's quite a compliment when they *do* get looked at.

With an ad hoc videoconference, the people in the audience really *are* looking for an intimacy. The experience is very compressed into a few hours and typically a lot of information has to be imparted.

Victor Aulestia(University of Maryland - Baltimore County Campus) : We have a trick on that one. We locate the loudspeaker that the voices of the TV participants are heard through behind

the camera in the back of the classroom. The teacher naturally looks at the camera.

Doug Widner : That's a good trick. Of course, in broadcast television, the use of teleprompters over the lens has been assuring that for broadcast people as well.

I want to interrupt our discussion now and before we move away from this discussion of "why?" entirely, try to get a bit broader representation from our members. Do we have Mike Thomsen from Arizona State University on the line?

Mike Thomsen: That's me.

Doug Widner : Hello, Mike. I know ASU is at the hub of an ITFS complex in Arizona that's pretty impressive. Do you folks train your teachers before they go on that ITFS system?

Mike Thomsen : To a degree. I think you'll find that just as many of the other locations that are reporting in, it is very much an academic situation. The faculty are very much in charge of classroom procedure. They are indeed supplied with some support and guidance to the extent that they are interested in accepting it. But it is not a situation where we can subject them to more training then they are willing to take.

A thought that I had as I listen to this discussion is that it seems I've heard of several different approaches that work well. We talked about should you or should you not have a studio audience. The important thing, I think, is that the faculty or talent and instructional designers adopt a clear viewpoint about the nature of the event and agree on the ground rules for everybody participating. You can have a situation that is essentially a conventional classroom, where teaching occurs pretty much as it always does, and make only modest accommodations for the technology, like modifying graphics, and it will be recognized and appreciated as a relatively traditional classroom situation.

On the other hand, if the major purpose of the class is to serve a distant audience, and the audience that's actually present is incidental, then you have the freedom to do a lot more with the cameras and studio technology.

Doug Widner : That's a very good point, Mike. I can't count the number of times I've seen the best laid plans go astray because someone forgot to accommodate the studio audience with the visuals and everything else. Thanks for making that point. That is also an excellent segue into part two of today's briefing, which is what we've all been kind of wanting to talk about for the last few minutes and that is, just what *is* going on out there. How are we doing it? I'm guessing there are as many different ways to train people to teach using distance education technologies as there are people concerned about the issue. In this part of today's audiobriefing, we want to hear from as many of you as we can; about what your organizations and institutions do to prepare instructors to use distance education technology. So in a moment, when I open it up, please chime in. I may call on some of you. But let's get the discussion going with Charlie and Sally.

Sally, tell us more about how you train teachers to use distance learning technology at University College.

Sally Johnstone : Let me set the stage a little bit. We're dealing not just with University College faculty, but also with faculty from the College of Engineering and the University of Maryland - College Park faculty. In conjunction with the ITV office, we have been able to put together a training program that seems to be fairly successful. We were faced with a lot of very experienced teachers who were not necessarily overly excited about teaching over television although they were good teachers and excellent content people. The people in the field wanted very badly to get the information these people have to offer. In order to, if you will, take as little of their time as possible and to get them as involved in the training process as possible, we designed a program that involves an evening of training.

The instructors come in and are briefed on the logistics of teaching over the system. We brief them in a room that is not a studio, a room that is very neutral. They have something to eat, they develop a kind of group environment where they are talking to one another. These are faculty members who are often senior faculty members. They are not really interested in listening to a "trainer" tell them how to do something. So they have a chance to talk among themselves and learn from one another about what works or does not work. We usually bring in a faculty member who has had some experience on the system to be part of that group.

After about an hour they go into the studio environment and are introduced to the various elements. Our "studio" is very similar to the one Charlie described earlier —classroom first, studio second. There we show them a rather humerous videotape called "The ITV Nationals." A couple of sportscasters critique a statistics class. In that tape the instructor makes all the mistakes and does all the good things that are involved in utilizing our system. He shows how to pay attention to the students at a distance as well as the students in the studio.

At the end of that we can have a full discussion, not focusing so much on what should or shouldn't be done, but letting the people who have watched the tape discuss it among themselves. Then everybody gets to practice with the studio environment.

After that point they're pretty much on their own, except that we have individuals who are available to help them critique a tape of their class as well as assist them to understand what will work and won't work on the air. We are never in a position where we can actually tell people what to do. That's the program we have devised.

Doug Widner : Thanks, Sally. That tape, "ITV Nationals," I've seen that, and it is a funny tape. You do make that available for sale to outside parties, don't you?

Sally Johnstone : Yes, we do. If anybody is interested, they can contact the University of Maryland— College Park campus, Department of Instructional Television.

Doug Widner: Okay. Charlie, it's your turn.

Charlie Urbanowicz: What we do at Chico is, our instructional media center actually works with faculty prior to the course's beginning. Before the course the media center invites the faculty in for a two-hour stretch in the classroom itself. New faculty will be invited as well as one or two of the old-timers who have had a positive experience.

We have a small, 16-page pamphlet that's full of tips. It talks about the need for pacing and timing; how one presents ideas on television; the flow of words, pauses; the pitch of a voice, how to make your pitch vary to avoid monotony. This is handed out and a short videotape explaining the technology and how it is made transparent is shown.

This is followed by a general discussion. Some of the horror stories from previous faculty are brought out as well as the good experiences. This is what we have been doing for eight or nine years.

Certain things lend themselves to television and other things do not. We try to point out that jerkiness and running around in the front of the classroom isn't good, for example.

We also point out the availability of the resource people on campus who can work with the faculty as the semester goes on. This process seems to work.

Doug Widner: Thanks Charlie. Am I reading things into what the both of you have said, or do I perceive it correctly when I hear that a lot of what you do is attitude adjustment as well as training.

Charlie Urbanowicz: A lot of hand-holding.

Sally Johnstone: I think I would go along with that. It is attitude adjustment. These faculty members are frequently coming in—the word I use is resistant. They have a lot of different reasons for why they are not interested in teaching on the system, but in essence they are a little afraid of it.

Charlie Urbanowicz: Sally, do you have a lot of repeat faculty on your system?

Sally Johnstone: We sure do. Those that are good really love it and, in fact, request to teach on the system. Once they've gotten used to it and know what is going on, some of them get very good at it. Then there are others who do *not* request to teach on the system again and we're just as glad.

Charlie Urbanowicz: That's been our experience, too. The good faculty keep coming back. It gives them a chance to get their act together; to do some long range planning; to get graphics put together. They understand that they need to do things just a little bit differently; maybe just a little bit better. The good faculty come back.

Doug Widner: Let's go back out and talk to some of our participants. Before I start picking on you one at a time again, I'll pause for a moment. Any volunteers?

Marie Oberle (National University Teleconference Network): I can speak for a number of academic institutions. We have had entirely ad hoc, non-credit teleconferences. We have the challenge that both Charlie and Sally have of having outstanding content people who are not very effective in front of the camera. We don't want to lose out on using those kind of people so we are challenged to come up with formats and a design that can utilize them without having them on-camera for an hour or two hours.

We do an originator's conference every year for member institutions that originate. They can learn about instructional design and hear from people like Sally Johnstone and other members who can assist those with less experience.

We are going to try for the first time this year producing a teleconference about producing teleconferences. This will be an interesting experience for us. This tape will be available for other groups.

Doug Widner : Marie, can our members contact you for more information on your annual originator's conference?

Marie Oberle : They certainly can. I'm sure that most of you will be getting information. It's on April 8th.

Doug Widner : Dave McIntosh, are you still with us? From Colorado Video? Anybody else out there have comments you would like to volunteer? We'd like to hear about your systems and what you do.

Mr. Clark(Rio Salado Community College, Phoenix) : I'd like to address a question to Sally. You were mentioning attitude adjustment relative to senior faculty members. You said there was some difficulty sometimes in getting them to participate.

Sally Johnstone : Yeah.

Mr. Clark : Is there *any* attitude adjustment prefatory to that on your part for those faculty members, no matter how senior they are or what their age, to introduce them to the concept that they're never too old to learn?

Sally Johnstone : I think that's something that I tend to do by process as opposed to trying to tell someone that. Once we have committed to do something and we're into our training session we have an incredible success rate. Even though they come in thinking they know everything they need to know and they're not particularly interested in learning how to do something different, by the time the session ends I would guess that no more than 3% of all the individuals in the last three or four years who have gone through this session have not changed their minds about how to use the system.

Doug Widner : Mr. Clark, did that answer your question?

Mr. Clark : Yes, thank you.

Doug Widner : Thanks for calling in. You are participating through the Maricopa bridge, are you not?

Mr. Clark : We are. We have audioconferencing and slowscan, so we're not attuned readily to what you're saying about the televised courses.

Doug Widner : Could you tell us a little bit about how you use the slowscan?

Mr. Clark : Yes. We have the images here in the studio and we transmit them, by throwing a switch, through telephone lines to various sites.

Doug Widner : Each site has a transceiver? How many?

Mr. Clark : In some classes we have six. In the last class I had, we had four.

Doug Widner : What kind of students are you reaching?

Mr. Clark : In the class I teach, which is Arizona government and history, we've had students ranging in age from 19 to 82.

Sally Johnstone : May I ask a question of Mr. Clark?

Doug Widner : Go ahead.

Sally Johnstone : I'm sure that you've been working with the system for a little while, so you're familiar with it. But for someone who would be interested in teaching a course over the system, what kind of training would you usually help them out with?

Mr. Clark : I think essentially, just a radio broadcasting course. The basic Radio Broadcasting 101 is the best preparation for it.

Doug Widner : Do you offer assistance in the preparation of visuals?

Mr. Clark : Yes, yes, very much so. We have one of the foremost preparers of visuals here. Art Butler is his name.

Doug Widner : And the system is well-accepted by your students?

Mr. Clark : We've found that to be generally true. I've not met anyone who has objected except that they could not see the instructor. I have to say to them often times, "Look me in the ear."

Doug Widner : That's a good line. Some people that use remote teaching systems like yours float the instructor around from one site to another, especially in audio-only systems. Is that something you have ever done?

Mr. Clark : Standby just one moment. Let me ask Helen Sprawls to address that because she is more familiar with the overall system.

Helen Sprawls (Maricopa Community College, Phoenix) : Many of our audio instructors have traveled from site to site throughout Maricopa County. Our college serves over 10,000 square miles so it tends to be a drive for people. We have with us one of the instructors who has traveled to a site, Jean Birch, and I'll let her answer that more completely.

Jean Birch (Maricopa Community College) : I taught technical writing on the slowscan and I visited a couple of sites. I found it was kind of easy to go in and direct the course from that site with the visuals the students would see at all the sites. I recommend it. As a rule I sit in the studio. In our system, not all the sites have the capability of returning a picture, so the interaction was via voice. That's another reason why it was nice and interesting for me to go to the site. I think it added something to the class. But for me it was possible. If the sites had been many, many miles away I'm not sure I would have done it.

Doug Widner : Do you agree with the assertion Sally made earlier that getting ready to teach your course required you to "translate" it?

Jean Birch : Yes. You start out by asking how on earth am I going to do that? And then you find out how to make visuals, and then you say what do I do to show them? With our system you can't show them nearly as much as you'd like to. It is a process of translation, but it gets easier every time you do it. The most important thing from my point of view is to try to maintain interaction with the students. In fact this semester, one of my goals is to get the students more involved with each other and with me.

Doug Widner : Thank you very much and please stay with us. We're going to wrap up today's audiobriefing with some discussion of evaluating—how you determine if teacher training is working or not. I'd like to call you again, then. Any other volunteers?

Ben Hambleton (Boise State University) : We run an ITFS system about 60 hours a week here at Boise. The process we use for training includes two wrinkles that I haven't heard discussed so far.

We give a small stipend to faculty members who teach on the system, the semester *before* they teach, to prepare the course syllabus material, their handouts, and to go through the translation process we've been talking about. That small stipend buys us a lot in terms of our being able to direct them in that preparation, in making those adjustments.

Both Sally and Charlie talked about the encouragement they give but their inability to demand much from an academic faculty. It's amazing how much a small stipend allows you to make demands in terms of adjustments to the teaching.

We also have the faculty, the semester prior to their distance teaching, bring in one of their traditional classes and teach it in our facility. We record that and then debrief the instructor based on the recording. So they have a practice session in front of the camera. Sometimes more than one.

The final wrinkle we provide is, at the very beginning of the semester they are teaching, the first class of the session, we play a five-minute videotape that we produced for students. It basically explains the interactive system and presents a set of expectations in terms of their roles and responsibility to give feedback to the instructor about unclear graphics, movement out of camera range, lack of clarity, and some of those kinds of things. We have found that this has really improved instruction. It

announces at the beginning of the course what the expectations are and thereafter the faculty try to live up to that. It also causes our remote students and in class students to be very aggressive in providing feedback to the instructor if things aren't working well. Those processes have worked very well for us. We believe they have improved the quality of our instruction substantially.

Doug Widner : Thank you, Ben. I hope you plan on rejoining us in March. We're going to focus on the same issues but from the learner's point of view. What do you have to do to get students ready to learn through distance education technologies?

Ben, you may have said this already and I didn't catch it, but how big is your system there in the Boise area?

Ben Hambelton : We're presently operating on one channel, 60 hours a week, seven in the morning until ten at night. It covers a four-county area stretching from the Oregon border to just east of us at an Air Force base. We're establishing a second channel that will come on-line in about a month and a half.

Doug Widner : How is it received? Are your students doing well on the system?

Ben Hambelton : Our performance is like most other systems. Performance is consistently high, generally a little better than the on-campus students. We attribute that to the fact that most of our distance students are only taking one class as opposed to a full load that divides the attention of our campus students. Our enrollments have declined just recently and we haven't determined what the cause of that is. Maybe it's because the economy is picking up in the State of Idaho.

Doug Widner : You bring up another good point that will need to be mentioned again in a forthcoming audiobriefing, when we talk about the economics of distance learning, and that is, how the economy effects whether you have high enrollments or enrollment shortfalls. Ben, thank you very much for contributing that information. Do we have anyone out there participating who is using distance learning to reach K-12?

Ben Hambelton : We're teaching some high school math classes using interactive instruction over public broadcasting stations. Two-way audio.

Doug Widner : How do the younger students respond, Ben?

Ben Hambelton : Much more aggressively than the older students. They are far more interactive. They joke with students. They ask the camera operators to pan back and show a student in the classroom. We've had them try to make dates over the air. They really seem to have fun with the system.

Doug Widner : That's great. That's news, too. Ben, is there a different kind or different degree of teacher preparation required to reach those K-12 kids than for older learners?

Ben Hambelton : I don't know that there's been any difference in kind, either observed or practiced, but we have found that the classes that we've selected have tended to encourage more interaction than the courses we're selecting for higher ed students.

Doug Widner : Thank you again. We need to move on but I want to make one more call out there. We're supposed to have several people participating who are affiliated with the Catholic Telecommunications Network of America. If any of you are out there, please identify yourselves.

Fr. Bob Bonnot (Catholic Telecommunications Network of America, New York) : I'm here in New York.

Doug Widner : Good to hear from you, Father Bob. I am particularly interested in hearing from you folks because I think, in terms of distance learning for K-12, the Catholic Church in America is perhaps the largest producer, and that, of course, through your diocesan centers and parochial ITFS systems. Do you think I'm right in saying that?

Fr. Bob Bonnot : I think that that is probably accurate. I don't know enough about other applications to be able to make a comparison, but it certainly is the heart of the Church's use of ITFS thus far, and it operates in about seven of the major metropolitan areas. I'm sure we have as good a track record there as anyone.

Doug Widner : What are your thoughts on this issue of teaching teachers to use your system? Is it something that's broadly done? You certainly have a lot of years' experience at it.

Fr. Bob Bonnot : I wish I were in a better personal position to answer that, Doug. I don't come from a background that's been directly associated with that. CTNA is not really at this point feeding into the ITFS systems. We are exploring that. I can testify that over my own years of contact with the ITFS users that the utilization coordinators, the people who go out and work with the teachers and help them to see how they can use the ITFS transmissions in their classrooms, is absolutely essential. The success of the system really depends on that. Beyond that I can't say what the specifics are that teachers need, but they do need support and assistance if the system is going to be used to reach the kids.

Doug Widner : Thank you Father Bob, and thank you for joining us. Let's move on to the last element we wanted to cover in today's audiobriefing. That's the issue of how do you evaluate the effectiveness of programs that teach teachers to train via telecommunications. That's something you don't say fast. Charlie, let's start with you.

Charlie Urbanowicz : How do you evaluate the effectiveness of the teachers who teach over television?

Doug Widner : No. How do you evaluate the effectiveness of your

programs to train them; whether or not you're doing the right thing in getting them ready to teach?

Charlie Urbanowicz : Any program, Sally's or Ben's, are constantly changing. We update. We throw out the old and put in the new. We revise our 16-page manual. We revise our introductory videotapes we use, just like Boise does. We assume we're doing a good job. That is a difficult question. Sally?

Sally Johnstone : Well, we were questioning whether or not we were doing a good job when we first started this and the first year we tried to track the number and the nature of student report forms that came in from the field. We compared them to the number and nature and the kinds of complaints, if you will, that we had gotten the previous year. That is, the system had been running for a couple of years without any sort of training program. What we found was that during the second year, or the year post-training, the number of complaints that related to faculty performance in any way dropped over the previous year by over 80%.

I took that as success. I interpreted that as a sign that we were successful. I think, though, that Charlie's point is very appropriate. We have altered the training program each time we do it to some extent. We look further at the needs of students to see what's going on and that adds a great deal to that initial outline that I gave you a little while ago, including showing the faculty member the tape that we use to train the students.

The other thing we do is survey the faculty after they have gone through the training to find out what has worked and not worked; how they perceive the training has affected their attitude and knowledge of what they need to do.

Charlie Urbanowicz : Sally, you weren't measuring the content of the courses themselves?

Sally Johnstone : No, we're not measuring—what do you mean by content of the courses?

Charlie Urbanowicz : Well, the content that the faculty were teaching, but you were measuring their performance you think.

Sally Johnstone : Absolutely, it was performance. This had nothing to do with content. The nature of the content of the courses remained fairly constant during the pre-training year and the post-training year. Neither content nor system had changed radically.

Charlie Urbanowicz : Very good.

Mike Thomsen (KAET, Phoenix) : Does that mean that what you were measuring was essentially student attitude rather than learning?

Sally Johnstone : We were not measuring student learning. That was evaluated in terms of grades and we have been tracking that as well, but what we found was that grades were not affected by the quality of faculty performance. What did change, however, was student satisfaction and

consequently the number of students signing up for ITV courses the second time and the number of students that finished the courses.

Mike Thomsen : Which, of course, helps considerably with your income.

Sally Johnstone : Exactly.

Doug Widner : Mike, since you spoke up, what do you do out in Arizona in terms of evaluating?

Mike Thomsen : I would have to defer on that to an Arizona State University staff member who may or may not be on the line; that would be Betty Crafts(sp?) of University Media Systems.

Doug Widner : I have no notice that Betty's with us. In the meantime, I am sitting next to a gentleman who is probably one of the most serious evaluators in the world. I have to say that because he's my boss, Dr. Louis Bransford, President of PSSC. Lou, you have been very quiet. I know you have some strong opinions on evaluating the effectiveness of anything, let alone your employees. Tell us what you think about evaluating teacher training for telecommunications.

Lou Bransford : Well, most of it is very subjective, Doug. It's hard, as someone mentioned, to measure knowledge gained. Most of it is attitudinal. I tend to follow an old principle. I call it the "good boomerang principle." A good boomerang comes back and this is in turn relating to the instructors. A good instructor will come back and that is your best measure of success. A bad boomerang? You don't want it to come back. This was alluded to earlier.

A lot of the effectiveness—I said it was subjective—is based more on anecdotes and attitudes.

Kay Leonard : Doug, this is Kay. I have to leave in about one moment, but I did want to put in my two cents for a moment.

The way we do training, besides sending out printed material so the person is not so afraid of the unknown, by telling him things like "the average person talks at 125-words per minute, so count your words for a 15-minute speech and don't send us a three-hour speech for your 15-minute segment"—besides that, when we are contracted to train them, we videotape them using teleprompter. Then they critique their tape. By the end of the day, when they see their second, third or fourth take, it is quite obvious what a difference the training makes. We can tell quite readily. At the beginning of the day there might be comments like, "Oh, boy, this person is really nervous," or whatever. At the end of the day that person has, all of the sudden, become comfortable with the medium and more able to deal with the right inflection for content than worrying about the teleprompter. You see an immediate reward in using the taping method.

I do have to disappear. I thank you all very much. I enjoyed it, Doug.

Doug Widner : Thank you, Kay Leonard from Beach Associates. Kay points out something that does really

follow on what Lou said, and that is a lot of the evaluating that seems to go on is "what goes around comes around." It's feedback. Before we sign off for today, let me go back once more to our friends at Maricopa and ask you folks, do you have any formal evaluating process to determine how well you are preparing the teachers that use your slowscan system out there?

Still with us Helen?

. . .The sun sets early in the West.

Charlie Urbanowicz : Doug, this is Charlie from Chico again.

Doug Widner : Oops. Not that early. Go ahead, Charlie.

Charlie Urbanowicz : Participants today might be interested in Gini Ostendorf's little newsletter that we just started subscribing to, called *TELETRAINING: A Newsletter for Those Who Teach at a Distance.*

Doug Widner : That's a good point, Charlie. We have written about that in the *Report to Members* and included a sample issue.

Charlie Urbanowicz : And the other one, I'm not sure if Colorado Video is still on the line, is one Pat Portway put together. This is the year of distance learning, by the way. This February at PTC, on Friday, February 19th, there will be a session on distance learning. Part of it will be a teleconference being spearheaded by Dr. "Tak" Utsumi from New York. Some of you may have heard Dr. Tak's teleconference in October which used slowscan from several locations and live video from NTU in Colorado, and spanned fourteen time zones. Dr. Tak is trying to do the same thing this February from Honolulu to go to Japan and North America. Looking for a "global Pacific University" concept.

Doug Widner : Thanks for pointing that out, Charlie. Although, I'd hate to be the participant in the time zone that gets to participate at two o'clock in the morning.

Bob Sistelli (The Learning Channel) : Doug, this is Bob Sistelli at The Learning Channel.

Doug Widner : How are you Bob?

Bob Sistelli : Fine, thank you. This has been a very good session and I appreciate being involved and hearing all of this. From our point of view it's a little different, but in another way it takes the various things we've heard today and combines them into a program network by satellite and cable television. We sometimes have live interactive programs either on the network or off the network, depending on what a client wants to have done.

We keep many of the same kinds of things in mind in stressing that the content is the most important factor and we try to help them to present that. We have the advantage, when we're dealing with clients, whether they are education agencies or professional associations, in having them agree that we are the experts in taking their content and translating that to television, and for them to have faith in us in saying how it should be presented, how sophisticated,

and what the particular approach should be to making it most effective for them.

The best way it is evaluated then is depending on how many enrollments or registrations there are for a particular videoconference, or how many repeat registrations come up in the future.

Helen Sprawls(Maricopa Community College, Phoenix) : This is Helen Sprawls from Maricopa. Can you hear me? We were on broadcast for awhile and that's why, when you addressed us, we were not responsive.

We had been discussing the evaluations and, to get to your question, there were a couple of good points brought out. We do taping of all of our classes and faculty members are able to self-evaluate as well as create a group that will provide feedback for them. One of the best comments heard here at the studio today when you originally asked the question was made by one of our faculty who said, dealing with the satisfaction of the instructor and the retention of the student: If the instructor is satisfied and if the students are retaining the class and come back to take more classes, that is our key to looking at whether a course is a success or not.

Doug Widner : That is indeed the bottom line, and as our friend and television personality, Mr. Agronski is fond of saying, "and the last word was yours."

We're out of time and I did promise everybody a prompt ending at 5:30. Let me take just a second to say thank you, sincerely, to Sally and Charlie for helping us out.

Don't forget we have five more audiobriefings in this series; the next in March. Call us at 202-863-0890 for specific information and to advance reserve a line or lines.

The forthcoming conferences are not apt to be as large as this one has been and, as a result, probably much more interactive.

Everyone, on behalf of the entire staff here at PSSC, it's been fun. Goodbye. Have a good afternoon.

"Strategies For Learning At A Distance"

A PSSC Member Audiobriefing

March 16, 1988

Doug Widner : Good afternoon, everyone. Welcome to our second in a series of six member audio briefings on distance learning. I'm Doug Widner, Vice President of PSSC and I will be your host for today's discussion. Our topic is "Strategies for Learning at a Distance."

In January, our topic was "Training to Teach at a Distance," and, for your information, we do have complete transcripts available free to PSSC members, if you'd like one.

I'm very pleased to have Ben Hambelton, of Boise State University, and Helen Sprawls, of Rio Salado Community College, joining me today as discussion leaders. I'll introduce these two in a moment.

A little later in the discussion we are going to play for you a montage of excerpts from a series of interviews we conducted with people who have been or are currently distance learners. The voices on that tape are not acknowledged, so let me just say that you're going to hear from Bob Moseley of Micron Technology in Boise Idaho; Carole Marsters of Motorola near Phoenix, Arizona; Kathy Finley and Walter Zamecki, two managers from Phoenix; Mike Webster, a high school senior from Nezperce, Idaho; Don Spiegel, a non-practicing attorney and accountant from Chatanooga, Tennessee; and, asking some questions, Laura Randall, from PSSC's staff. My thanks to all these people. They'll be getting a copy of the transcript. And a note for all of you, after today complete transcripts of those interviews will be attached to the transcript of this audio briefing. Let us know if you want a set.

Now let me remind everyone that these audiobriefings are intended to be very interactive. They represent the most convenient way for members of the Public Service Satellite Consortium to actually consort. In a few minutes, someone will hand me a list of the people who are on-line with me today and I will call from that list to stimulate conversation. So, you are now warned!

Now let me quickly go over our agenda so you know where we're headed today and how we intend to get there.

I've divided our subject—strategies for learning at a distance—into five subtopics for discussion. I hope we can spend about 15 minutes on each. I'll introduce each part with a few questions for our discussion leaders, then we'll open the floor to questions and comments from anyone. As I said earlier, I'll occasionally call on some of you by name.

Our subtopics are, "What distance learning students are like, or *should be* like;" then we'll listen to the excerpts from the interviews we conducted and discuss them; then the topic will be "Orientation of the *new* distance

learning student;" then "homework;" and, finally, "problems with the distance learning student."

Now, about today's discussion leaders. Helen Sprawls is the Director of Instructional Technology at Rio Salado Community College. Helen, glad to have you with us. How are you?

Helen Sprawls : Fine. Thank you for inviting me to participate.

Doug Widner : Tell us a little bit about your institution and its use of distance learning.

Helen Sprawls : Rio Salado Community College is a non-campus college and this is why I was asked to set the stage a little bit. It is a college that has area offices in all of the 10,000 square miles of Maricopa County and, as such, our mission has been to get education to where students are. So we're a little bit differently configured than many traditional institutions that may be on-line and listening to the conference, and that makes a difference in a lot of the things that we do. A great part of our mission when we were founded approximately ten years ago, was to experiment with different ways of delivering education to students; to actually go out and pick as many different kinds of delivery systems, look at what was out there, look at how it could be applied to education and how we could better reach the students that we had to serve. Phoenix is a metropolitan area sort of clustered in part of Maricopa County and a lot of the county is very rural, so we have a lot of different populations with a lot of different needs that we serve through the many different delivery systems that we have.

We have the interactive teleconferencing and we also have broadcast television, public television, cable, audio cassette, correspondence, all combinations of delivery systems including computer conferencing.

Doug Widner : Thank you, Helen. And I'll point out that two of the people we'll be listening to on our pre-recorded tape are students of your institution.

We also have on hand with us Ben Hambleton who is Director of the Simplot/Micron Technology Center at Boise State University, which also happens to be the network center for statewide telecommunications in Idaho. Oddly enough, Ben is calling us from Portland, Orgegon, and I'm going to let him explain that to you. Ben, thanks for helping out today.

Ben Hambelton : Thank you, Doug. I appreciate it.

Doug Widner : Why don't you follow Helen's lead and tell us a little bit about what is going on at Boise State?

Ben Hambleton : Boise State University is a comprehensive university in a state system that, about two years ago, received a donation from private industry amounting to about four and one-half million dollars, to build a high technology teleconferencing and telecommunications center, the purpose of which is both to import and export educational programming for the benefit of Southwest Idaho business, industry and the general public.

Subsequent to that and the creation of the center, the State Board of Education formed a statewide educational telecommunication network overlaid on the public broadcasting network, that is a licensee of the State Board, and we've been engaged in delivering education between campuses in our large, sparsely populated state, and in doing local distribution of courses to off-campus sites.

We run a four-county ITFS network that delivers some 50 to 60 hours of video coursework to industry, schools, hospital sites; we use cable television, the public broadcasting system with telecourses, and we also have a C-band satellite uplink associated with our center.

As the network center we're responsible for training faculty at all campuses on teaching via telecommunications systems and for providing consultation services, bridging, or switching on the network, if you will, to the local distribution area in our part of the world, and generally facilitating the growth of telecommunications in the state.

Doug Widner : Okay. Thank you very much, Ben. I should also point out that two of the students we'll be hearing from are students of Ben's facility there in Idaho: the high school student and our adult learner from Micron Technologies. So, Ben, you didn't tell us what you're doing in Portland. Can you do that in 10 words or less?

Ben Hambelton : The State of Oregon is planning its own statewide telecommunications system and they have asked me to come over and share the experiences of Idaho.

Doug Widner : Okay. So I guess you're joining us on their payroll. That's wonderful.

Ben Hambelton : Ha! That's true.

Doug Widner : Thanks. Let's move right on into our first subject of discussion for today. The theme statement for our next 15 minutes or so is what distance learning students are like, or *should be* like. Okay Ben and Helen, let's get our discussion started with this issue. Helen, does your institution set criteria for distance learning enrollees?

Helen Sprawls : No we do not. Rio Salado students who want to take classes through distance learning self-select. Usually they do so because of the convenience factor; many of them self-select because they have taken a distance learning class before and have enjoyed it, like the delivery system, and wish to continue taking classes in that fashion.

Many of our students take classes with us in their area of general studies and take their major, for example, either on-site at Rio Salado, or at another community college, or many times we have students from the university who take classes from us so that they can fit classes into their schedule and graduate, for example, in two years instead of four years, or whatever schedule is working for them. But we do not have criteria in terms of any kind of a profile that we ask for in a student.

Doug Widner : Okay. Of course, Helen, students at your institution almost invariably sign up for just this kind of experience, don't they?

Helen Sprawls : Many of them do. The majority of Rio Salado is students in on-site classes. Those classes are on military bases and in shopping malls and agencies and whatever. But many of our students sign up with alternative delivery in mind, because they *are* alternative delivery and fit into their schedules. Rio Salado itself—in fact, the entire Maricopa district—has an open-entry policy. We do not have criteria for any of our students in terms of enrollment criteria.

Doug Widner : As you know we'll be getting, a little later in the agenda, into the topic of what motivates students to sign up for this form of delivery. Ben, let me throw the question to you. Do you have criteria for enrolling students in distance learning classes?

Ben Hambelton : No, we really don't. The distance learning program is administered through the continuing education office, which has really no admission standards, if you will, or criteria that it applies. People self-select much as they do in Helen's system.

Doug Widner : Okay. Let me move on to another question then. What personal characteristics or traits—Ben—do you feel intuitively are requisite to success in one of these classes?

Ben Hambelton : Well it's an interesting question; one that we've thought a lot about, particularly as we've put together material for the orientation for our students.

How do we describe the ideal distance learner? At first we included such things as independence and self-direction. But as we reflected on that, we decided that in practice few interactive distance learning programs permit much student participation in decision making regarding the selection of course goals or content or the learning materials or sequencing and so forth; that this type of interaction and influence on the decision processes of instruction appears most often to be a negotiated thing between student and faculty and the distance learner doesn't have the same opportunities to do that.

So most distance learning programs we're familiar with are heavily teacher-directed—and that includes ours—and permit very little, or very limited, student participation in the instruction decision making.

But we do find that they need to be assertive and pretty self-disciplined; that they are able to work without direct supervision and be responsible for the assignments that they have and for the pacing of their progression through the course.

Doug Widner : But there's no way you really test for that ahead of time.

Ben Hambelton : No, there really isn't. We try and set some expectations with the students, both with the material that we give them and in the orientation that we do on air that says, "these are the kinds of behaviors we expect from a distant learner to be successful," but we don't screen for them.

Doug Widner : So there's nothing in your literature that says "No one under 25 need apply"?

Ben Hambelton : Right.

Doug Widner : Helen, how about you? Any particular intuitive feelings you'd like to share with us on what makes a distance learning student successful or unsuccessful?

Helen Sprawls : Several, but before I do that, I was corrected by one of my faculty sitting here at the table. Our students do have to be at least 18 years old. He had tried to have his nine-year-old granddaughter sit in on a German class with him and there was a problem there in terms of allowing her to do that. So we do have one criteria: students have to be at least 18 years old.

In terms of characteristics or traits that are requisite to success, we have been in the process of putting together a course this past semester called "Learning at a Distance ," and the course is going to be a one-credit-hour course and it has a couple of functions. It introduces students to a variety of technologies.

We work within that course to give a student an experience with all the different alternative delivery methods that we use at Rio Salado, along with looking at some of the characteristics that would cause the student to be successful in taking distance learning courses.

What we've found, obviously, was that the characteristics that would allow a student to be successful in distance learning are the characteristics that allow success in any kind of learning. The assertiveness, the discipline in terms of study, the ability to be able to organize time, that they look at their lives and set some priorities in terms of their goals—all of these things that we wove instructionally into the class are successful profiles that any student, regardless of the method that they chose to learn, would in fact have to be a successful learner.

So that was a really, really good project for us because we found that there were *not* differences; that what we were doing was possibly emphasizing different characteristics, but in actuality, the characteristics of a successful learner were the same.

Doug Widner : I think we figured that out in the process of the interviews, too, Helen. A non-educator would say all of those characteristics added up together spell one word, and that's probably "maturity." They have to approach the whole thing in a mature fashion, and if they do that they are probably going to gain from it.

Helen Sprawls : I think one of the things that we've learned in putting together the course, "Learning at a Distance," is we've identified some of the critical areas in terms of characteristics for success, and they're not so much characteristics or traits that students do not have, but part of it is reconfiguring the idea of education, the relationship between teacher and student, the ability for a student to call an instructor in almost a collegial atmosphere in certain ways, having a different way of looking at concepts of authority ... those are fundamentally what are looked at and

revised philosophically, not so much the characteristics themselves.

Doug Widner: Thanks. I want to ask you and Ben two more questions quickly before we open it up to participation from the rest of our members.

We'll start with you, Helen. Should students, in your estimation, be required or directed *officially* at the start of a distance learning course to set goals?

Helen Sprawls: I'm not sure what we're talking about when we say "set goals." If they are, for example, goals for graduation, programmatic goals, educational goals, I'm not quite sure exactly what that question is asking.

Doug Widner: And I'm not quite sure, either, to be honest with you.

Helen Sprawls: What we have found, in terms of students who have a clear idea of where they're going, obviously they have a much truer foundation from which to operate. They will call us, for example, and say "I want to register for English 101," or "I want to major in Arizona history, what are you having next semester?" " These are the courses I need. You know, plan out an entire program."

Students, on the other hand, who will call up and say "I think I want to do this, and I think I want to try a television course, what are you offering?" We'll either send them a brochure, or they'll have a class schedule from us; they'll say, "Okay, I think I'll try this." And we've not really noticed a difference in terms of success in the classroom itself. In terms of the student going on within Rio, or going on to, perhaps, further education, that's a different set of criteria than in terms of success of the class. That's not really a determining factor for us.

Doug Widner: That's an interesting comment because I would think that the overall satisfaction that any student would get out of a distance learning class would at least a little bit do with the goals that the students collectively bring to the class.

Helen Sprawls: Actually we have found some that are quite different. We found people that have signed up, they never thought they would do this, they went to our schedules, which are available to all convenience stores. when they're buying the milk and bread and aluminum foil, they pick up a class schedule and they think, "I can take this by television," or "I can take this by teleconferencing." They don't feel threatened at becoming a college student in this fashion. They've never tried it.

And after one experience that is successful for them they'll call up and say, "This is just super, I'm going to enroll and I'm going to get a degree in such and such and I want to talk to a program advisor," and other really good things. And they came with really nebulous—at best—goals.

Doug Widner: Mixing those students with the students that did have good—I shouldn't say good—but did have definitive collegiate goals did not seem to affect the outcome of the class.

Helen Sprawls: Nope. The class is successful or not depending on all the

other kinds of motivating factors within the group that gathers together. Their goals in coming to the class are not a really a determining factor. No.

Doug Widner : I'll be darned. Very interesting. Okay, I'm not going to ask you the other goal-oriented question because we've covered it in this answer. Let me turn it over to Ben. Ben, do you encourage students to set goals, or how important is goal-setting to the success of a distance learning experience?

Ben Hambelton : We don't formally encourage students to do that. And I would second most of what Helen has said. We think that the distant learner is frequently without a lot of the support mechanisms, a lot of the student interaction and out-of-class interaction with teachers and so forth that is often available. We intuitively believe, I think, that those students that sustain themselves in a distance learning environment do better if they have a very clear focus as to why they're in the class, what they're trying to achieve through the system. If they're taking it for experimental reasons, or for kind of fuzzy or unclear occasional goals, it seems to us that they have less success in managing some of the independent learning and sustaining themselves through the activity that might otherwise not have to do.

Doug Widner : All right, fine. Let's open it up to other members who have been listening patiently for about 20-25 minutes now. We're running a little over. Any comments before I call on some of you selectively?

Virginia Ostendorf (Virginia A. Ostendorf, Inc.) : Doug, this is Gini Ostendorf in Denver.

Doug Widner : Gini, how are you?

Virginia Ostendorf : Fine, thanks. I'm very familiar with both of the presenters you have on. I think they certainly have been innovators and leaders and they live in an environment, an educational environment, that reaches out to non-traditional delivery. They clearly have both spent awhile kicking around the academic world and I would like for both of them to comment on what they think it will take for more traditional, campus-bound universities to open up to this type of delivery.

Doug Widner : Okay, briefly. Helen, let's start with you.

Helen Sprawls : Well one of the things that is a real motivator for other campuses that configure theirselves differently is to look at the success distance learning is having at Maricopa. Some of the things that can be accomplished through alternative delivery systems—and I use that kind of in conjunction with distance learning, I sort of use those terms synonymously—have motivated a lot of the faculty, a lot of the administration of our sister college to definitely want to become a part of this. The district itself has looked at district-wide task forces in computerization; now they're looking at video in terms of district-wide, our telecommunications project, all those things have come down the line because success has been seen in doing this sort of activity, and the reciprocal pleasures of the students in participating.

Doug Widner : Thank you, Helen. Okay, Ben, briefly, can you respond?

Ben Hambelton : I think we're going to see the same kind of adoption curve that normally applies to innovations. One of the ways in which that is going to be facilitated is the resource-sharing capability *inter*-campus, between campuses. If telecommunications systems are put together, the ability for faculty to interact with faculty at other campuses and share colloquia speakers and so on, I think are going to demonstrate the benefits of it that will then spill over into general education instruction to students directly.

Virginia Ostendorf : I certainly agree with you that that's a strong benefit of what we all believe in so strongly. Having seen so much parochialism in campuses in protecting their turf and the particular disciplines they teach, I really wonder if that's going to happen in our lifetime.

Ben Hambelton : Well, I think the time is right. I'm seeing more and more places, like here in Oregon and in Idaho, where I'm from, where the collaborative, cooperative programming is getting high priority on governing boards and funding agencies. Telecommunications makes those cooperative, collaborative programs possible.

Virginia Ostendorf : You bet it does. Thank you very much.

Doug Widner : Thank you Ben and Helen, and Gini for calling in. For those of you who may not be familiar—if any of you are not familiar with Virginia Ostendorf—she's the publisher of *TELETRAINING* newsletter, one of the most popular entrants into the field, but it's already well-established. I know it's a magazine, or newsletter rather, that we don't like to miss around here. And Gini, before we ring off today I hope we get a chance to come back to you for more information on *TELETRAINING*.

Okay, I'm going to call on one or two people. Are you all ready with bated breath? Dave Molinaro, West Virginia Research and Training Center. Are you with us?

Dave Molinaro : Yes, Doug.

Doug Widner : How are you doing?

Dave Molinaro : Fine, sir.

Doug Widner : You're an old-timer in teletraining; not necessarily of the curricular variety we've been talking about so far.

Dave Molinaro : That's true, but it's always good to see what's going on.

Doug Widner : As a matter of fact, I have a wonderful commendation hanging up on my wall that you got for me. Remember that?

Dave Molinaro : Oh yes, that was back in the old year of '82.

Doug Widner : That was in a videoconference for the job accommodation network, if I remember correctly.

Dave Molinaro : That's right, spanning the globe. Yes.

Doug Widner : All right. We've been talking, Dave, about distance education in a very curricular way. We've been talking about what students bring to the party in part, in terms of goals, requisites, that kind of thing. In your experience, the non-curricular videoconference training and R&D, is one kind or one set of character traits more likely to be satisfied with this kind of training than some other set of character traits?

Dave Molinaro : What we have done—we do, as the folks may be aware, ad hoc networks. We assemble networks across the country on specific topics—and what we have found is that if, one, the place is right, whatever the market will bear as far as cost of admission to the program, and if the topic is hot, folks flock to those programs. We have not been able to bring learning right into the job site as has been suggested by Helen and Ben. We usually ask them to go somewhere to receive their education and we've found that the more the technology spreads out, the more dishes we have all over the country, the easier it is for folks to send out programs.

But I think the fact remains that it's the timeliness of the topic. If it's something that's going to help then do their job better, and if we can give them that information in three to six hours, it comes off very well.

Doug Widner : Thanks for that observation, Dave.

One of the things we have found in doing one and one-half of our series of six audiobriefings on distance learning so far this year is that the ad hoc continuing education or professional education videoconference learner and the collegiate distance learner are two entirely different animals and we're going to do our best throughout the year to represent both points of view, but at times it's going to be a little ragged. So everybody will have to put up with that. Dave, thank you.

Okay I'm going to spell all the rest of you. I'm going to let you off the hook this time because we've got to move on to topic number two, but be prepared to talk at the end of that one.

I'm going to play for you about eight minutes of excerpts of telephone interviews with six distance learners. These excerpts have been edited in a very staccato, montage-fashion and both Ben and Helen, who got to preview the tape, suggested we spend a moment establishing the contexts from which these statements were drawn.

Okay. To begin with, we asked each of our interviewees what motivated them to try a distance learning experience and the first several excerpts you'll hear are in response to that. Let me also point out that not all the people are excerpted responding to all of these topics.

After we asked about motivation we got right to the point and asked them what was done, or given to them, if anything, to help prepare them for dealing with the technology.

Then we asked about their reactions to their instructors.

Altogether we've selected 11 excerpts that represent about 5% of the total dialogue of these interviews.

The excerpts pass quickly and we won't stop the tape during the eight minutes that it runs, so listen with pencil in hand.

Okay, Ray, roll the tape.

Excerpts from Distance Learning Students Interviews

1. **(Moseley)** I think convenience has probably been the biggest factor. Boise State is noted for its parking problems on campus, and also the fact that you can take the course while you're at work and take an hour off for lunch during the class instead of having to basically take an hour and a half, maybe to two hours to go downtown and park your car, try to find a parking place, and then get to your class and get back to work.

2. **(Widner)** How far away is ASU from your location? **(Marsters)** Actually it's not very far. It's about five miles, but the parking is atrocious.

3. **(Finley)** We're about 35-minutes outside of Phoenix, so we don't have close access to a campus. We don't have a lot of time, so this is really convenient for us.

4. **(Moseley)** At the outset it was fairly dry and we did not get a whole lot of warning as to what it would be like. I think that basically because it was so new, since then they have developed a very good orientationfor the students. This past semester they would run a videotape prior to the class telling the class exactly how to use the different microphones that would be in front of them and the buttons that they'd have to push. But as far as—they did do an excellent job of finding out how things went after the first semester was over, which led up to the increased awareness of the students, probably not being as open and flexible or maybe as outspoken as they would have been had they been right in a class. A little fear factor with the microphone.

5. **(Marsters)** We were told up front kind of what to expect by Motorola, not particularly ASU. It was just like they said it would be. We'd be in a room and there would be a television and a VCR and you'd hear the teacher and sometimes, if the students press their button for their speakers, then you would hear the questions that the students would ask, but otherwise you just heard the teacher. You got to see the teacher, you got to see what he wrote on the board. If you had any questions you could call up during class time.

6. **(Marsters)** I don't think they could have done anything differently to prepare us. It's almost like having a classroom except the teacher's not in the same room.

7. **(Finley)** We went to the first class period. At that time I didn't even know that the television was going to be involved in it. We had had one teleconferencing course last semester so we were familiar with how to use the little microphones and stuff, but with our first one we did not have any type of insight as to what it was going to be like until we got there. **(Zemeckl)** The professor coaxed us into using the mic. The professors usually are the ones that explain what we're going to be doing, and then they have each student get on the mic—they force them into it, just to assimilate themselves into the situation. The information is in the catalogues. It tells you if you're having teleconferen-

cing or whatever. And we're in college, we should take the time to find out what we're doing.

8. **(Widner)** What did they tell you before you took this class but after you said you'd be willing to? Did you get anything in the mail or any written material about how it works? **(Webster)** No, I didn't. Some men came up from the place that was doing it and told us about it, but nothing was ever mailed to me. **(Widner)** What did they tell you? **(Webster)** They said that it was a pioneer project and that it was, you know, supposed to be really important and new, and what it basically did, you know, that we were going to be on TV and live telephone hookup—and it sounded interesting to me.

9. **(Moseley)** The tape as it stands now fairly well describes what the ITFS system is and why it was developed. It goes into the locations, some of the locations that the ITFS system is now in and shows the students interacting with their professor in a classroom situation. So it kind of breaks down the barrier that is automatically set up, it seems like with people who are not familiar with a microphone and a TV set. It seems that some people feel like they're just exposing themselves to the world if they open up the microphone and talk to it.

10. **(Randall)** Have you met your instructor, Carole? **(Marsters)** I've talked to him over the phone. **(Randall)** You've never met him in person? **(Marsters)** No. **(Randall)** Does that bother you at all? **(Marsters)** Ah, sometimes. Yeah, it bothers me. But if I call up and I know I can get ahold of him and if I can't we'll play telephone tag, so to speak; we'll catch up to each other sooner or later and I'll get my question answered. The teachers are very understanding about this at ASU.

11. **(Spiegel)** I think it's the same as live. A good speaker, whether it's on television or live, should be well-prepared, should be organized, should be able to present his material in a concise, understandable manner, and watching him on TV or watching him live is the same as far as I'm concerned. **(Widner)** In fact you've said a couple of times that they can even be better from the standpoint of being more concise. **(Spiegel)** Yes. I think that all of us are aware of what I would refer to as on-line time. Basically analogizing it to the computer where you are paying x-number of dollars per minute to be on the system. I think that analogy carries over to the satellite and these speakers are aware that they are on the clock, so what they say needs to be very pertinent.

Ray Houdtzagers (Conference Operator) : We're back live, Doug.

Doug Widner : Thank you, Ray. All right, everybody, that was our experiment in preproduced audio for a member briefing audioconference. Now, I just basically have one question for Helen and Ben to start the discussion about these excerpts and it's a long one.

So, Helen, starting with you: These folks share an enthusiasm for distance learning that probably also means they are "good at it"—at least I would assume so. Is it appropriate that some of them should *prefer* to take classes this way? Some of these people—it appeared to

Laura and me as we interviewed them—would go out of their way to *avoid* taking classes on campus, or conventionally. When you put together your distance learning program, did you have this particular attitude in mind or were you trying to accommodate the student who would *like to come* to the school but is unable to?

But before I turn you loose on that, Helen, let me add that Marketing 101 classes say a requisite to the success of any product or service is to *know your market*. If that's true for distance learning, we think this issue of who do we cater to could be extremely important. Go ahead, Helen. Do we cater to the people who simply will do anything to avoid going to school? Or do we cater to the people who would like to but cannot. Okay, Helen, your response.

Helen Sprawls: At Rio, the way we looked at distance learning, the whole college was geared to going where the student was. We were not looking at students who were avoiding education. Quite the contrary. We were looking at students that, in the beginning, for example when we were doing our audioteleconference system, students who were in rural areas where not enough students could gather together to allow us to cost-effectively offer them a course.

That quickly changed to populations such as, for example, people who were homebound in a hospital or at home and could not by any practical means travel to a campus; to people who were at home with small children and it would be very difficult for them to get to a campus, to people who were on military bases or in offices or wherever they were whose schedules did not permit the hour-long drive to and from a campus. That was originally the way the distance learning that we offer blossomed. We never really looked at our students as whether they were, quote, trying to avoid going to a campus. What we looked at was what fits their needs.

Many of our students—I would say probably the majority of our students—do some combination—they may not do that combination in a semester—but they do some combination within their educational community college life, on campus, with distance delivery, whatever it might be. They don't always do it with us, either. Students may take distance delivery from Rio Salado, they may take courses on campus at one of the other community colleges that is a lot closer to where they live or has the specialization.

One of the things about our distance learning is we now offer AA and AS degrees by distance learning; however, it does limit the number of electives and number options ycu can have. Many of the students take whatever they can because it's convenient for them and they they'll go on to something else, a certificate program or whatever.

We really look at the needs of people, not whether they would like it. There's some reason for it to be different on a campus then it would be delivered in a distance manner. We don't look at that as two different—they're different types of experiences but they're not necessarily different types of courses. If that makes sense to you.

Doug Widner: Yeah, I think it does. If it doesn't, our members will catch you

on it. Thanks Helen. Let's move on quickly to Ben.

Ben Hambelton : I think, Doug, that in a way you've drawn a false dichotomy there. I'm not sure there is an extreme set of positions in that regard. I think that there are people who find that they like aspects of the distance learning and prefer that to some of the aspects that they don't like about school, but we've not encountered any learners who would go out of their way to avoid campus and to seek learning through this mechanism. They generally select it because there are convenience aspects or some benefits that make it desirable for their circumstance, but if circumstances change they'd go to campus. That's been our predominant experience and as we're marketing we're certainly *not* marketing for the extremes.

Doug Widner : That's interesting. I'm not sure Bob Moseley, one of your students, the guy from Micron Technologies, would agree with you. I think he really enjoys attending your classes *at work*. Especially because he gets time off to do so.

Ben Hambelton : It's interesting, though, too, for Bob I think that's true and he's a very avid user of our systems. But you'll find Bob in the classroom on campus in that same distance learning class that he's enrolled in on occasion.

Doug Widner : Oh. Now this is something he did not confess to us. Thanks a lot!

I'm going to ask one more question spontaneously here before I open it up. One would think coming from entirely outside at least the formal educational arena that one of the reasons for having a distance learning initiative at a campus would be to increase FTEs. To just purely go out there and try to enroll students and increase your numbers.

We got the feeling, Laura and I did, from interviewing all of these people, that the classes were generally small, and that there generally was not a thrust from any of the institutions they represented to enlist inordinate numbers of people through the distance learning initiatives. Do you think that that feeling we got was an accurate one, Ben?

Ben Hambelton : Oh I think so. I think anyone who gets into distance learning with the notion that they are going to enroll large numbers will by and large be disappointed. I think you have to get into it because you're serving an unmet need. Because you see it as your role and mission. I think that we found that what it does do is provide a feeder into our campus-based FTE in that people who are re-entering the educational marketplace will frequently try their wings academically through these distance learning things, which they view as less threatening than going in and sitting next to the 19-year-old whiz kids.

Doug Widner : Good observation. Helen, your reaction to that question?

Helen Sprawls : I would agree with Ben. We look at it more as meeting the needs. And also you have to look at the technology. Our television courses do have large enrollments. Some of them have over 100 students. Our teleconferencing courses, obviously,

because of the interactive media, are rarely any larger than they would be if they met at a site. So you also have to look at what technology you're looking at as well as other factors in terms of class size.

Ben Hambelton : That's true for us as well. Our telecourses are highly enrolled.

Doug Widner : Okay. It's time once again to open it up to hear from some of our members. I'm sure that some of you were busily scribbling questions during that eight-minute prerecorded interview playback. Now is the time to unload them. Go. Who's first?

Jim Vaught [sp?](Wisconsin Educational Communications Board) : This is Jim Vaught from the Educational Communications Board in Wisconsin. I would think that the distance learning format would be tailor-made for serving physically disabled persons. Do your institutions make an effort to reach these special populations?

Doug Widner : I know that is an important thing on the agenda at Rio Salado. Do you want to respond to that Helen?

Helen Sprawls : We do have what is called "the homebound project" and we have had that since 1984. It was originally focused on the teleconference system, our "Sundial Network," to actually recruit, go out and find students who wanted to become community college students but who couldn't because they were physically disabled to the point where they could not travel to a campus. This usually involved multiple disabilities, not usually just one such as visual impairment or mobility impairment. These people were usually confined not only to home, but to a bed or to a hospital bed or wherever it was.

In doing that we then provided services and networked—back to Ben's comment on partnerships—networked with a lot of agencies so that we do support visually impaired students. We actually had hearing impaired students on the audio teleconferencing system using interpreters. That was an extreme, but the circumstances were such that the student had to take the course in that fashion and that's the way they did it.

So we have not turned away a student for any physical disability or combination of disabilities in terms of distance learning to this point. I'm not saying they couldn't come up with a combination that would be difficult for us, but so far we've been able to work around that.

Doug Widner : Thanks, Helen. Ben, do you have anything to add to that?

Ben Hambelton : No, I don't.

Doug Widner : Okay. Jim, did that answer your question?

Jim Vaught : Yes, I was impressed by the fact that it does go beyond just the people who have difficulty seeing or hearing, that in fact some people have difficulty getting to the site altogether. I would just wish that there would be consideration of this. I think that as distance learning progresses there will be increasingly, I would hope, through

the demands of persons who are handicapped in whatever way, or not handicapped, I guess, but impaired—and I do think that the distance learning programming should keep those individuals in mind.

Helen Sprawls : This is Helen from Rio Salado and I want to make one other comment. What we've found, especially with severe cases of disability, that as students became distance learners, motivation increased to such a point that their overall wellness in many cases allowed them to go on campus, they became very aggressive about their education. It really was wonderful to see.

Doug Widner : Thank you Helen. Jim, let me ask you a question and then I know Lou Bransford from our staff wants to make a comment. Do you know of any distance education program that was started, brought into operation, expressly to accommodate the homebound or the handicapped?

Jim Vaught : I don't personally.

Doug Widner : Okay, Lou, you were going to comment, go ahead.

Lou Bransford : With reference to the handicapped. Sometimes in our efforts to bring the programs out to the client we forget the importance of socialization to bring them in so they have an opportunity to interact with others in a communal setting. It's a double-edged sword sometimes.

Doug Widner : It was interesting to note that one of Helen's students—the young woman we interviewed—talked about the fact that one of her instructors had a session where they brought everybody together but only one representative of the class didn't come and that was because she was homebound.

Lou Bransford : And probably the person who needed it the most.

Helen Sprawls : This is Helen and one comment I'd like to make to that is with the audio teleconferencing system we had for a long while, and are still reviving from time to time, the homebound student union, in which we put our bridge on automatic, allows students that socialization who do not have any other chance to socialize. We do a lot of that with the audioconference system and the feedback we've gotten from students is that this is a very important part of the overall being community college students.

Doug Widner : Thank you very much for bringing that up. That is a very interesting and intriguing point.

Ben Hambelton : This is Ben Hambelton and I'd like to comment to that just a little bit. I think that's somewhat selective. We thought that might be important and we tried to program in site visits by our remote students and at least among the teacher population we got severe resistance. They said the whole purpose of their enrolling in the distance learning was that they didn't have to come and be social, that they could kick back after a day of work, take their shoes off, not display the attending behavior, not put on any social mask or anything, that

they *didn't* want the socialization, that they wanted the content and then get on with it.

Doug Widner: Somebody was trying to chime in. Try again.

Virginia Ostendorf: Doug, this is Gini, I'm back in. I got disconnected somehow.

Doug Widner: Hi. You were trying to chime in a moment ago.

Virginia Ostendorf: Somebody asked a question about programs for disabled people. I wanted to mention a very helpful and fine book for those of you who have a real strong interest.

There was a book published by the Institute for the Future. They did a project in Vermont which was somewhat related. It's not necessarily for blind people and so on, but it was for the developmentally disabled and I think there were a lot of very good points made in that paperback book. The name of the book is *Telecommunications and Developmentally Disabled People* and the authors are people from the Institute for the Future. I think their publications are numbered and this one says on the cover, "R-50." The Institute, many of you know, I'm sure—I have a telephone number if anyone is interested. Do you want me to give that?

Doug Widner: Yes, Gini. Please.

Virginia Ostendorf: Okay I'm madly looking through my Rolodex. That would be 415- 854-6322. It's an extensive book. They did an awful lot with audioconferencing and computer conferencing and electronic mail. The summary of that pilot project is very well set out in that book, so any of you that have interest in that will find it to be a very good resource.

Doug Widner: Thank you very much, Gini. Do you know, while you have it in front of you, how old that book is? When was it published?

Virginia Ostendorf: July 1981.

Glen Southworth (Colorado Video, Inc.): This is Glen Southworth and I might mention that Dr. Stewart Meyer at Northwestern University had worked on the distance teaching for the geographically disadvantaged, oh, I think about10 or 12 years ago and I know that he told me that there were literally thousands of bedridden students in the city of New York.

Stu, of course, is in Chicago and has written about a number of projects. The main one, though, was for disadvantaged inhabitants of the Cook County Jail. He had a grant from the Pace Foundation there that involved the providing of both instructional educational services, legal services, library services and even electronic visits from friends and relatives to the inmates there.

Doug Widner: Thank you for pointing that out, Glen. For those of you who didn't catch it, that was Glen Southworth, President of Colorado Video, one of PSSC's first corporate members and a gentleman who some people would refer to, non-chronologically, as the grandfather of slow scan television. Thank you, Glen. Okay, we have to move on real quick. We're

running out of time and way over and I want to take us into orientation of the new distance learning student, which I promised you we would get to about 15 minutes ago.

One of the things that Laura and I picked up really quickly as we were interviewing these distance learning students from around the country is that they were somewhat baffled by our preoccupancy with what they were told to get them ready for it. Most of them—and I think most of you who are distance educators would have probably told us this before we embarked on this venture—their attitude was, there was nothing, there was no preparation necessary. It was easy for us to walk in, once we knew that it was a television or once we knew that it was a microphone it was relatively easy for us to adapt.

Therefore, some of the students that we talked to came back and said, "Some of the things that you, Doug, and you Laura, are talking about are probably suited for what we would call orientation at the very least or marketing, but definitely not necessary in any formal way to get us ready for the classroom experience." So I want to talk about that for just a few minutes.

Okay, Ben, why don't you start us off by telling us what you tell students to get them interested in distance learning?

Ben Hambelton : Well, I think that in terms of getting them interested we simply sell the benefits: the convenience factor, release from work time kinds of things. We sell the effectiveness. The fact that study after study indicates students learn well. And in some respects we sell the novelty of it. We *don't* spend an inordinate amount of time in trying to orient them to the technologies. In fact the technologies that we use are fairly familiar to the students.

Doug Widner : Right. I would point out that the high school student that we heard from, from Nezperce, Idaho, named Mike Webster—he was the one that said some men came up and visited us. He was definitely high on the technology and he was a product of some of your work up there, Ben.

Ben Hambelton : Yes. We did, probably, more work in the K-12 area in terms of informing parents and school boards and other folks about what we were doing than we have in our higher ed stuff.

Doug Widner : Let me just tell you one of the things that Mike Webster told us during the interview that we did not have time to excerpt, but that I think was very interesting.

He said that at one point—and Ben, I'm sure that you'll tell us that this was partly because it was a new program—he said he was brought down to Boise—we take it, he said "the place" and we assume that's Boise—along with all of the other distance students and they were given an opportunity to sit in the classroom, and the students that would normally sit in that classroom were sent to other rooms to watch on television and call in their questions, so that the two different kinds of students were given opportunity to change roles. He thought that was pretty "neat." I think that was the term he used. And, quite frankly, so did we. Is that something that you intend to do all the

time, or was that just to introduce the program?

Ben Hambelton : We got such mileage out of that that we have talked about making that opportunity available in the future, each semester. Not only was that role reversal neat, but the interaction. They had already developed by long distance, relationships with each other, now they got a chance to sit at lunch and visit and it was fun.

Doug Widner : Great. Thanks, Ben. Let's turn it over to Helen now. What do you tell students to get them interested in distance learning? Of course, to ask you that question is to ask you what you tell students to get them interested in Rio Salado.

Helen Sprawls : Actually we tell them just about exactly what Ben tells them. I was looking at our brochure that I have here. The last one that we did last Spring. It says, "taking classes conveniently from Rio Salado Community College anywhere in Maricopa County. If it has been difficult for you to attend regular on-campus classes for any reason, etcetera etcetera." We sell the convenience, we sell the novelty, but we don't do it a lot.

The main orientation that the student gets to the course itself, just like in any classroom course, is the packet of materials by mail that orients them to whether this is marketing or whether this is English or humanities, and what you're going to have to do and here's your calendar of assignments, and those sorts of things are much more our focus than the technology. The technology is almost not there.

Doug Widner : Thank you, Helen. Okay. I'm not going to open it up for questions right now. I'm going to move on to the next session so we can get through our agenda.

The next section is "homework."

That can mean any number of things so I'm just going to open it with you, Ben. How much of the learning product must be supplementary; for example, print material?

Ben Hambelton : I think it is important that we have a strong component of print material and supplementary media. The distance learner is not in a resource-rich environment, typically. They're not where they have libraries and other students and lots of exchanges with faculty and so forth. I think it's important that in the design of the course careful attention is paid to the supplementary media and that it's provided to the distance learner to give them additional avenues to get to the content.

Doug Widner : Thank you, Ben. Helen—how about Rio Salado?

Helen Sprawls : We do approximately the same thing. We also use supplementary media, not only print, but audiocassette or whatever it takes to get other types of learning strategies into the equation rather than just the television or whatever happens to be going at the time.

Doug Widner : One of the things that Helen and Ben and I discussed in a preconference conference call that I

think we ought to bring out now for the benefit of everyone, was an observation that was shared with me not too long ago. Most of you may be familiar with the German by Satellite program that Oklahoma State University has pioneered now for several years. I had an occasion now to spend a few moments with the professor, whose name eludes me, and he told me that when everything was said and done the learning, most of the learning that takes place between the students and German, is a part of the software package that goes with their Apple computers, that is supplementary to the television program. And he told me that the actual televised instruction, which gets so much publicity, as we all know throughout the country, was really nothing more than reinforcement.

To me that came as a surprise. I didn't raise any claims of false advertising but of course they did run through my mind.

Any comments on that, Ben?

Ben Hambelton : I think it raises the issue of what is the role of the media. I think that clearly there is a growing recognition that particularly the video media may not be the most efficient mechanism for carrying the whole load of instruction. It serves well as a motivator, as a pacer and as an enhancement, elaboration, demonstration and so on, but a lot of the content does need to come sometimes through more traditional modes, and that by using the media effectively and doing a better job on the design work we're going to be more effective than simply making it try and play all the instructional roles and carry all of the load.

Doug Widner : You will find it refreshing, Ben, that Mike Webster, your high school student, swore to Laura and me that his learning over the PBS system homework was the *first* homework he did every night, before he did anything else.

Ben Hambelton : That's great.

Doug Widner : Helen, how about you?

Helen Sprawls : Doug, I have a faculty member who would like to respond to that question.

Doug Widner : Very well. Name, please.

Lloyd Clark (Rio Salado Community College) : I'm checking my mic. Can you hear me? This is Lloyd Clark and I teach Arizona Government and Constitution and in regard to the homework, we have some of the finest homework exercises going now in this state. You may know that there is an impeachment trial of our governor.

The class this time had more students wanting to get in it so that we finally had to limit it, because this is the Constitution in action, and their homework is very available to them during the course of the day as they watch the proceedings on television, so this was a ready-made practical exercise for this course. Of course, you don't get those every year. We were fortunate, I guess, that the class started while the impeachment trial was going on.

Doug Widner: I would have liked to take that class, I think.

Lloyd Clark: Is there anyone here from Georgia? Well, nonetheless, Georgia's the Peach State. You now know Arizona as the Impeachment State.

Doug Widner: [Laughter] Thank you, Lloyd.

Homework. Let me ask one more question before I throw it open. Should work activity done for a distance learning class, but not during the class, be considered *by the teacher* any differently than in a face-to-face classroom situation? I think we've hinted at it already, but if that question makes sense, Helen, can you respond?

Helen Sprawls: I have a room full of faculty who just said "NO! Absolutely not!" so that's my response. No, it should not be treated any differently. We look at it as part of the class. In fact, the whole distance learning instructional design—and I know we had this conversation as we were going over the agenda yesterday, and myself—in terms of looking at the class as a classroom, and the course itself and not because it's either distance or in a classroom.

Doug Widner: Thank you. And thank you everyone there, for consensus. Now, Ben, are you going to cop out and abstain or are you going to object?

Ben Hambelton: I'm going to object —slightly. I think that there are times when the homework has to be considered differently for the distance learner, particularly when it's a question of process and product.

On campus a lot of times the homework assignment involves accessing resources: going to the library, learning about the resource tools, the reference tools of a discipline, and being able to abstract out of that the content. The exercise is process as much as it is product: the term paper, the theme, whatever.

That isn't always possible for a distance learner. You have to provide the resources; you have to be selective with them. I think sometimes that process gets lost and you have to be very careful as you think about homework assignments for the distance learner, for their constrained environment and for the process loss that may occur. It's partly related to goals of the course and it's partly related to circumstances of the distance learner. But I think there are times when the faculty member's responsibility is to recognize that difference and to account for it and get at those goals a different way.

Doug Widner: Thanks, Ben.

Helen Sprawls: Doug, we've got a faculty member, Jean Birch, that would like to comment.

Doug Widner: Very good, go ahead.

Jean Birch (Rio Salado Community College): You know, I really don't see it as being any different from any other kinds of constraints. For example, I teach English and we are always concerned with the process that you were talking about, but I have taught on two other occasions at brand new campuses where the facilities were not terrific and I think it's just incumbent

upon the faculty member to say, all right, what steps to the process do we need to teach? Now what do the students need to be able to do it? And to make sure that that's supplied. We don't always have the greatest facilities available at some sites, for instance, for research. It becomes part of our responsibility as teachers to supply that information, and that's why I see the homework for distance learning as being no different from anything else.

Doug Widner : Okay. Thank you for that opinion. I think I'll stop the debate between our two discussion leaders and open it up to our other members.

Any other feelings pro or con on the issue?

I guess that means we've covered it. I'm going to move on into the last topic on today's agenda. Helen and Ben, I know we went over three questions, but in the interest of time I'm only going to ask one and I'll start with you, Ben.

What are the most significant problems that students face, if any, in dealing with distance learning?

Ben Hambelton : Gee I don't remember that one in the pre-conference phone call.

Doug Widner : It wasn't. I'm pulling it on you.

Ben Hambelton : I was, at least, set up to think of—and I might want to revise my answer in a moment—I was thinking of in terms of the logistics. The most frequently encountered problems that we have in our distance learning have to do with materials distribution: with courier service, with registration, with equipment operation, with the logistics itself and not the instruction or the conveyance of the instruction, but a lot of the student's support and logistical consideration. They don't seem to improve learning when they work well, but they sure inhibit it when they *don't* work well.

Doug Widner : I'm very glad you pointed that out, Ben. That is a problem that we heard about from a couple of our interviewees. Anything else?

Ben Hambelton: No, I'll let that stand for the moment.

Doug Widner : Okay. Helen, how about you?

Helen Sprawls : I would agree with that 100%. If it's not there you have just one huge headache and if it is there then the learning has to take off from it.

Mail is our primary concern. Students getting mail to us; the course operations staff getting mail to the instructors, and the instructors getting mail back to the students. This is our number one concern so that they can feel they are part of the class, that the class works for them, that they are getting the feedback they need. The second concern is contact with the instructors. Many of our students have just heinous schedules in terms of, if you can get me at midnight on Tuesday for five minutes and that's it. So those sorts of things.

We've looked at a lot of computer possibilities in terms of having messaging services—whatever it takes to get those students and instructors together on the issues that they need to

talk about. But logistics I would definitely agree are number one.

Doug Widner : And all of our interviewees would agree with you.

This begs an anecdote that I've got to share with you. More than one of our higher education students that we interviewed complained about the logistics of exchanging paperwork back and forth, and of course the most frustrating instance they said was when they took an exam, turned the paper in, and because of logistical problems their papers did not make it back to them by the time the teacher went over the answers on the screen. Except the high school kid from Nezperce, Idaho. And he never had a problem with this. When we asked him why, he thought we were stupid. He said, "Well, we photocopy our tests before we turned them in."

Helen Sprawls : Oh our students do that also! But that's not the same for them as getting it back with the instructor's comments.

We have our students photocopy everything because of the mail. If it doesn't reach us, then the student has to redo an assignment or is really left in the lurch; so they'll copy everything.

Doug Widner : Okay. It's a good tip whether it comes from a high school student in Nezperce or from you, Helen. Tell them to photocopy everything because we did hear from almost everyone that logistics can be a problem.

I'm going to open it up one more time to our members. This is it. The subject has been "Strategies for Learning at a Distance." Helen Sprawls and Ben Hambelton are our discussion leaders. If you've got opinions, questions, what have you, now's your last chance.

Willi Bokenkamp (University of California) : This is Willi Bokenkamp with the University of California and I was wondering relative to the logistics problem if any systems are using facsimile for transmitting paperwork between locations.

Doug Widner : Very good question.

David McIntosh (Colorado Video, Inc.) : This is David McIntosh at Colorado Video and I would like to add computers to that [question].

Doug Widner : Very good. We have two questions on the floor, facsimile and computers. Gini Ostendorf, I'm going to come back to you on that. That was your cover article in your most recent issue of *TELETRAINING*; first let's give Ben and Helen a chance to respond. Ben?

Ben Hambelton : We're not presently using facsimile transmission. The University of Idaho, in our state, uses that medium quite frequently in their tape-based course delivery.

Doug Widner : Okay. Helen?

Helen Sprawls : We are not using facsimile for students for distance learning purposes. We do have the students that are now doing computer conferencing and are, obviously, now doing all this by computer, but that's by no means all of our distance learning students.

Doug Widner: Great. Gini Ostendorf. Are you still with us?

Virginia Ostendorf: I sure am. I have two comments. First, the Iowa system that I ran from 1979 to 1982, that system had a hard copy capability where we could send out one-way to all sites at once, written material. They all had fax's [facsimile transceivers] so they could fax back anything we needed. That worked rather well. I think it depends how your network's constructed, of course, and what's your least-cost option.

As you mentioned, our lead article in *TELETRAINING* in the February issue was, we stumbled across a very innovative new use of video. So those of you who have full-motion analogue video systems might want to listen up.

There's a product called "Video Trax" put out by Alpha Micro which enables you during your test period, when you are transmitting your color bars and tone, you can also transmit the handout material which you have taken from your IBM-compatible computer, taped onto a VCR, then just transmit it as you would any 1/2" or 3/4" tape during the tape period. Your sites can then receive that. All they have to have is the software to downlink that video signal, record it on a VCR and go over to your IBM with a printer on it and print out. Then the local site facilitator can duplicate it en masse. Clearly, if it's a large document, the duplication process might take some time. But I do know that most videoconferences of any size have half an hour to an hour of test period so that would be a good time for you.

Anyone who would want a copy of that article I would be happy to send a sample issue of the newsletter and if you just address your request to Doug I'd be happy to fill those. It's really a new technology and we think it's very exciting.

Back to you, Doug.

Ben Hambelton: Gini this is Ben. The Alpha Micro folks have just developed a board for the MacIntosh SE and Mac II so it's not limited to the IBM world, either.

Virginia Ostendorf: I knew that. Thanks for reminding me. The test I was thinking of had been done on IBMs, but of course it is capable of being done on the Mac as well and, as I understand it, I think they can do fixed, hybrid networks, so if you have Macs at one place and IBMs at another you can actually broadcast to each one in turn. I might mention that that test—and I didn't cover this in the newsletter article because of lack of space—it has successfully been trialed at the National Technological University for the past 14 months. In a short time all their members will have that capability. I just thought I'd throw that out as a legitimate reference for this sort of iffy new technology.

Doug Widner: Thank you, Gini. And thank you Willi Bokenkamp for raising the question. That's a very important point. These are all technologies that are going to become ever-more popular and widespread as time passes.

We have time for maybe one more question or issue before I get into closing

remarks. Who wants to have the last word?

Stan Huffman (Virginia Polytechnic): This is Stan Huffman at Virginia Tech.

Doug Widner : Stan, I could have guessed it!

Stan Huffman : I would agree that logistics are some of the biggest problems that you face in this business. I've been in it for five years now, only at the graduate level. Getting the homework out there and back and getting the text books out there and getting the students registered and all that sort of thing represents the biggest headaches that I think we have faced and have not really solved the problem totally, yet.

In regard to the facsimile: we do have facsimile in all of our sites out there. It's been used one-way primarily, to send things out. We have not tried it to bring homework back or anything like that—although we are considering doing that.

The second thing: I will provide our students out there with the software to use electronic mail to get back to the campus if they want to do that. So we have used computers primarily for mail this way. The other way we have used them is we provide some software for students to access our mainframes in connection with any homework assignments which are tied to the mainframe here on the Virginia Tech campus.

Doug Widner : Thank you very much, Stan. And as I promised that will, in fact be the last word accept mine. Hold on just a moment, Lou Bransford, President of PSSC is waving at me. He's pulling rank on me. Lou, go ahead.

Lou Bransford : My prerogative, Douglas. Since it is going to be the last word let me just make a comment on what I think enhances the utilization and adoption of distance learning, or for that matter, any other innovation.

As you know, we have been studying the adoption of innovation for some time and what we have observed, and what I submit to you is, that there is one factor that is clearly identified as a determining point in the success of a program and that is the presence of a champion. What I observe here is that in Helen and in Ben we have the champions. I believe that many programs would fare much better if they had a champion like Ben or Helen. That's my comment.

Doug Widner : Thank you, Lou. An inspiring closing remark—my apologies to you, Stan Huffman.

We're about out of time. Before I let everyone go, I'd like to point out—and this is very appropriate—that PSSC operates a computer bulletin board service called Queue that is grossly underutilized by you all. We could, and would be delighted to, continue this dialogue and others like this, through on-line computer conferences. We would very much like to hear from those of you who think that would be a good idea. Please call me, Ray Houdtzagers—who today has been our conference operator —or John Scott, our Director of International Programs and, by default,

Queue-keeper. All of us can be reached at 202-863-0890.

That's also the number you want to use to order your transcript of today's audioconference. Remember, transcripts are free to PSSC members who participated in the conference, so don't hesitate to ask.

Helen Sprawls from sunny Arizona—thank you so much for being with us!

Helen Sprawls : Enjoyed it, thank you.

Doug Widner : Ben Hambelton from the pure air and potatoe state—even though you're in Oregon —thank you!

Ben Hambelton : You bet, and thank you. I enjoyed it as well.

Doug Widner : And to all of the rest of you, and on behalf of the entire staff here at PSSC, thank you and good bye until next time.

"The Economics Of Distance Learning: Business Or Social Service?"

A PSSC Member Audiobriefing

May 18, 1988

Doug Widner : Good afternoon, everybody, and welcome to our third in a series of PSSC audiobriefings on distance learning. Today's subject is, "The Economics of Distance Learning, Is It a Business or a Social Service?" As a reminder, we have already conducted two member audiobriefings on topics about distance learning; our first dealt with preparing teachers to use learning distance technologies and the second had to do with preparing students for the distance learning experience.

Transcripts are available free of charge to PSSC members participating in any of these briefings, so if you're interested, do call us and ask for a copy. Our regular business number is 202-863-0890.

Now before I introduce today's discussion leaders, a few comments on how we'll conduct the briefing, and a quick overview of today's agenda. There are no formal presentations in these audiobriefings. Our discussion leaders are just that. I will pose questions to them to get our discussions started, but we want all of you to speak up and get involved immediately. I have a list of your names and I will, as those who have been with us in the past know, call on you at random if I have to for comments and reflections.

By the time we get started, we will have about 75 or 80 minutes for today's discussion and we've divided that into four sub-theme areas.

We're going to begin with a discussion on start-up costs; the cost of planning a distance learning program, and by program I don't mean a particular program, but an overall learning distance initiative. Secondly, we'll talk about how return on investment will be defined for various types of distance learning. Third, we'll address the issue of setting prices for programs, courses, seminars and the like. And finally, we'll look at ways, other than regular tuition fees, to generate revenue from distance learning programs.

Okay, moving right along, today we have three discussion leaders and we're trying a slightly different approach. Most of you are aware (that) PSSC's membership is very diverse and many of you have reminded us in the past month that distance learning as a profit or a not-for-profit enterprise is also very diverse.

We've had conversations with many of you about how to handle that diversity and came up with an arbitrary but we think workable classification scheme. We're going to break distance learning into three basic types for the sake of discussion.

The first we're calling curricular, and that encompasses all of the academic K-12, undergraduate and post-graduate

distance learning courses of study that lead to matriculation or degree of some sort. Representing that class of learning today is our discussion leader, Stan Huffman, Director of Distance Learning at Virginia Polytechnic Institute and State University. Welcome, Stan.

Stan Huffman : Thank you.

Doug Widner : Are you ready to speak up for all those curricular interests out there?

Stan Huffman : Any time.

Doug Widner : Okay, thanks Stan. Our second distance learning category we call "certified." Within this group are all those who produce distance learning programs for professionals that must be certified or re-certified on some ongoing basis. Millions of health professionals, accountants, engineers, lawyers, and others fall into this category.

Now many individuals might sign up for these programs on a non-credit basis or without a certification requirement, but all of these programs are alike in our estimation in that they are profession- or industry-specific and their bottom-line purpose is to provide continuing professional education.

And our spokesperson for this category is Susan O'Connor, Director of Audio and Video Law Reviews with the American Law Institute/American Bar Association doing professional education at the American Law Network. Susan, good afternoon.

Susan O'Connor : Good afternoon.

Doug Widner : Did I make that distinction between "certified" and "non-credit" all right?

Susan O'Connor : Yes, you did.

Doug Widner : Okay, great. Our third and final category is what we call "General Training and Information." Again, lines blur. Some of these programs may earn continuing education units and others might apply to industry-specific certification programs. However, they are generally produced for non-specific audiences. Much of the distance learning on so-called business television networks fits into this category. Management training is perhaps the most visible variety today. Representing this category for us is Joan Milczarski, Director of AMA by Satellite, the lady whose name at AMA in fact spells "satellite." Joan, thanks for being with us.

Joan Milczarski : Thank you, Doug.

Doug Widner : And I might comment, Joan, I just saw the full-page ad for AMA by Satellite in this month's issue of *Management* magazine.

Joan Milczarski : Oh, *Management Review*, yes.

Doug Widner : A lot of us have waited a lot of years for AMA to get involved in training via videoconferences and it's great to have you with us today.

Joan Milczarski : Thank you.

Doug Widner : Okay, moving right along. We are about three minutes

behind schedule but I know we'll catch up. Let's move into topic number one and get the ball rolling with you, Stan. Our subject for the next 20 minutes is the cost or elements of cost involved in starting a distance learning program. You've started one or two or more, I believe in your career, Stan. What have you to say?

Stan Huffman : The start-up costs that I'd like to talk about are not necessarily the specific dollar amounts although I can relate something to that if there are specific questions about it, but I'd like to concentrate more on the kinds of things that one has to consider spending money on in creating a distance learning program.

The electronic classroom that we have created for an origination site is one that has been specifically designed as a broadcast facility that will allow students to take the course live on campus while also transmitting the same course to those students who will receive the program throughout the state of Virginia or the other states as well.

The classroom itself has cameras, switching equipment, all of those things that are necessary to make a studio operational. And the receive classrooms where the students are going to be looking at the program out in "TV Land," obviously you have to have a number of receivers because the students will be viewing those in small groups, a VCR so that you can record the program, and an audio system so that you can have feedback to the instructor during the program itself.

All of the classes that we originate are live, interactive classes and the student is allowed to ask a question at anytime during the course itself. Programs are recorded both on location here where they originate as well as where they're received. They're recorded here in case there's technical failure in the system and we can send out tapes. They're recorded out there so that if students miss a class they can view the tapes at a learning center or some other facility so they never have to miss class.

The one thing that we find in this program is that it's necessary to make sure the students have an opportunity to attend every class. Therefore, you will also have an additional expense at both ends for the videotape that is necessary for recording.

The other expense that you have to look at in beginning a program is how you are going to distribute the signal. We are distributing ours primarily through satellite systems at the present time and in order to get the signal from the origination site to the uplink, you'll either have to go with land lines, fiber optic systems, or microwave.

The uplink itself is not a cheap kind of investment as one might imagine. At the other end to receive the program, there are downlinks at each of the installations in Virginia that receive the program. An alternative to that is to use microwave and you can either build your own system or piggyback onto another system if you have one in existence. You can go directly into a facility or you can rebroadcast on the other end with an ITFS system which would then allow you to be able to serve a number of sites at that end.

You also have to make sure that there are telephone lines available at both ends of the system in order to handle the

in-coming/out-going kinds of calls that you're going to get for troubleshooting and making sure that everybody is connected into the system.

Those are basically the hardware kinds of considerations. Then you might get into the technical production. You will need production people, specialists who will handle the camera or the switching, and we do all of that with one person and then for all of our classes we use a graphics artist to create material that will be used on-air. In addition to that, we have the regular faculty to teach the classes.

Those are the basic elements you have to think about in terms of starting up a distance learning program. We will complete our fifth year when we go off the air tonight and I think you can say that this is the kind of thing that we've been involved in, creating the facilities that we're presently using and these are the elements that you have to think about.

Doug Widner : Thank you, Stan, for that comprehensive overview. I've got some questions for you, but before I launch into it, or before I pick on anybody from our participating audience, do any of you want to volunteer any questions or comments or statements for Stan?

Sally Johnstone (University of Maryland - University College) : I have a question, this is Sally Johnstone from Maryland.

Doug Widner : Go ahead, Sally.

Sally Johnstone : Stan, what are the costs that you have found, or is this not a factor for you in terms of distribution of print material or handling testing problems or anything else that's usually involved in a credit course?

Stan Huffman : That is an element that I didn't cover. We do distribute handout material to our students. We also send out material during the course at various times. There are tests that also go out and tests and exams that come back. In many cases we use the mail to send things out if we have them in time. In some instances we use fax and sometimes we use courier. Most of the materials when they're coming back to us come by courier and that courier bill can become quite expensive. We probably spend about $5,000-6,000 for the year on courier service.

Sally Johnstone : Do you have one person or a staff of people that would be in charge of just that?

Stan Huffman : Of what?

Sally Johnstone : Of handling the non-electronic distribution of materials?

Stan Huffman : We go through the office in the College of Engineering where we have the curricular part of this program if the instructor wants to do it. But they can also send it out on their own. We have no requirement that it all has to go through one person and we don't have a staff to handle it as such.

Sally Johnstone : Thank you.

Doug Widner: Thank you, Sally, for that question. Before I move on to Joan

and Susan to get some other perspectives, Stan, let me ask you a question.

Stan Huffman : Okay.

Doug Widner : I know your program at Virginia Polytechnic is an extensive one. Before you did anything—launched anything—did you go to the state for a big hunk of money to underwrite it?

Stan Huffman : Yeah, the state gave a big hunk of money to underwrite this program when we got the thing started. Just a very brief history of that—there was a commission appointed by the governor that looked at science and technology in Virginia and they came out with the recommendation that we should teach engineering courses to areas which did not have graduate engineering schools. They appropriated the money for us to get started with the program in March. We went on the air in September with it.

Doug Widner : Charlie Woodliff from Western Michigan University, are you with us? (pause) You're supposed to be. I think Charlie's hiding out there. Okay, well let me move on, Joan, to you. From the point of view of the training and information category group, what can you add or what perspectives can you lend to this issue of start-up costs?

Joan Milczarski : Well, I come to it from the perspective of someone who doesn't have an in-house studio and who doesn't have an in-house faculty to draw on for the types of programs that we're running.

So my costs involve renting a TV studio, hiring a producer and a director for the broadcast and for preparation, possibly also using that producer for any pre-production work that we might do such as pre-taped vignettes, then of course we also have to rent satellite time, and if you're talking about the people who appear on the broadcast in some cases I would pay them honoraria —in other cases I wouldn't. It depends on people themselves and their relationship to AMA. In almost all cases, I would pay their expenses and usually we're talking about people who probably aren't located in the same city that we're broadcasting from.

And then I also have the expense of producing and shipping ancillary material that goes along with the broadcast and that can be quite a substantial expense. Then there are other costs; certainly the cost of promoting the program, commissions that I might pay to anyone involved in some kind of sales activity and then the cost that we would run into for producing videotapes.

I think it's very easy to underestimate the costs that can be involved in a program like this. I come to it from the perspective of somebody who's been involved in live public seminars and live in-house seminars and once you get involved in television and TV studios and pre-taping and all those other things, the costs are mind-boggling to someone from my field.

But I think also what's mind-boggling are the numbers of people that you can get involved in the audience. For example, a program that we ran in April for secretaries we had 17,000 people out there viewing the videoconference at

over 700 sites and it's just an amazing thing for us.

Doug Widner : Thanks Joan for that, and you say AMA in the bigger picture without getting explicit, would they consider it an expensive startup proposition?

Joan Milczarski : Yes, compared to sorts of investments that we're used to making for live programs. I think it's roughly comparable to what would be spent on a film. Of course, AMA doesn't produce nearly as many films per year as we do live seminars. But it's more in that category of investment.

Doug Widner : It's probably worth pointing out that AMA does have an extensive video division, or audio/video/film division, right?

Joan Milczarski : Right, film/video.

Doug Widner : So the cost of media production is not something that was foreign to you.

Joan Milczarski : No, not totally foreign.

Doug Widner : Well, thanks. Let me move on to Susan O'Connor. I imagine a lot of what Joan says goes along with your experience with the certified group.

Susan O'Connor : Yes, that's true. Let me elaborate a little bit on the promotion expenses. We find that at least half of our cost involved in producing a program involves the printing of brochures, mailing them, using or purchasing mailing lists and so forth. We not only have to advertise each individual program, but we also have to think about softening the market if you don't have a ready-made audience, you have to somehow educate the prospective registrants about the value of attending such a program. And that's a considerable expense.

Another cost that we have (involves) affiliates that host and, in some cases, underwrite the expenses of the receiving sites, the viewing sites, and we pay our affiliates for the use of their facility for the provision of administrative services and in some cases assistance in promotion of the program. Another cost that you would want to consider is somewhat minor, but it does add up, is the provision of coffee, soft drinks, snacks, or whatever, depending upon the length of your program and time of day that it occurs.

Doug Widner : Thanks, Susan. The first point you made, I think, can't be overemphasized enough. Half, did you say, of your production budget goes into the promotion and marketing?

Susan O'Connor : That's correct.

Doug Widner : Kay Leonard, Beach Associates, you're with us, aren't you? Not yet. How about, David Molinaro, West Virginia?

Crickett Weston : David Molinaro is *in absentia*, he's in Boston, but Larry McLaughlin and Crickett Weston are here in his place.

Doug Widner : Okay, Crickett and Larry, welcome.

Crickett Weston : Thank you.

Doug Widner : I know you guys have been involved; I've been involved with you in past years. What's your reaction to that statement of Susan's that 50% of the production is in promotion and marketing in her experience? Does that relate to what West Virginia has done?

Larry McLaughlin : Yeah, we're currently involved in experiments for a local network that would work with some of these other national networks in the distribution of programming statewide. We would concur that even our promotional efforts break out to be roughly about half of our operating cost.

Joan Milczarski : Excuse me, this is Joan Milczarski. Is that for programs that you're actually producing yourselves?

Larry McLaughlin : That would be both. In both cases; actually, most of our promotional expenses come in advance of the delivery of the program.

Joan Milczarski : Because I find that for AMA we're spending considerably less than half on promotion cost. I don't know if that's good or bad.

Doug Widner : Right, well 17,000 is a telling number, Joan. We're doing something right, huh?

Joan Milczarski : For that one, yes.

Doug Widner : Walter, from Black College Satellite Network, are you still with us?

Walter : Yes, and I've also been joined by Dr. Mabel Phifer.

Doug Widner : Dr. Phifer, how are you?

Mabel Phifer : Fine, how's everyone today?

Doug Widner : Good, glad you could join us.

Mabel Phifer : Yes, I was just running a little late from another meeting.

Doug Widner : Oh, well, glad you could make it. I don't know whether you heard Susan's comment that we've been discussing.

Mabel Phifer : Yes, I did.

Doug Widner : What do you think of that?

Mabel Phifer : Well, I think it depends on the kind of mobilization and outreach you have to do for an audience. It depends on whether you have a ready-made audience, the amount of money, we find, that has to be spent on marketing and all depends on the kind of program and who we're doing the program for.

We have done this year's teleconferences for organizations like the National Urban League which has a dedicated audience and they had their own membership that reached into the

thousands—almost millions—all the way to a teleconference for Columbia Pictures, and they spent a lot of money on marketing.

Doug Widner : So in the ad hoc world, it's a little bit of everything.

Mabel Phifer : It's a little bit of everything and I think it depends on who you're trying to reach.

Louisa Nielsen : This is Louisa Nielsen.

Doug Widner : Louisa, go ahead.

Louisa Nielsen : I have an experience from George Washington University Television which is where I was before I was at the Broadcast Education Association.

One of the things that I've learned in the economic setup situation is that one really needs to take this to heart as a business situation and do a needs assessment and a business plan before a school district, a university or almost any entity becomes involved in either the setting up of a studio, acquiring a construction permit for a station license or for a station itself, or any heavy involvement other than perhaps renting space and trying it out to see how it might go, which might be part of the needs assessment.

At GW we had a situation in which the president of the university thought it would be a great idea to do continuing education for full degree programs in electrical engineering and in business management. He decided to set up an ITFS station to do that in an area that's already had two colleges providing distance learning—George Mason University and the University of Maryland. Without doing that needs assessment, and also without finding out if those two schools would grant their degrees over television.

So I think that if one is counting on a school within the university to provide the degree program, one almost needs to go into a contract relationship with those schools in order to make sure that that happens because there were promises that were supposedly broken.

And it really is a business. Listening to the amount of money that people are talking about—marketing costing 50%and a number of the other issues that have been discussed so far.

Being in this surrounding for about, I guess, two years watching these programs happen, they're all very good, but I think that the business side is neglected because of goodwill, because people may be involved in education first and then learn how to be business people when they need to be both at the very beginning.

Doug Widner : Yeah, thank you very much for that very insightful observation. Louisa, I can't help but point out that the irony of getting that good piece of business sense from you with your former connections at GW, for those of you that may not have made the connection, George Washington Television in cooperation with the engineering school there was the group that has several times brought us Peter Drucker, the granddaddy of management training and business sense. So, I guess you practice what you preach, Louisa?

Louisa Nielsen : Yeah, fully.

Doug Widner : Great. All right, it's time for us now to move on to our second topic and a lot of things that have been said fit nicely into that and that's the whole issue of return on investment and how we might define it. And to get us started in this, let me start with you, Susan. How would you apply the expression, "return on investment" to ALI-ABA's (that's the American Law Institute - American Bar Association's) concern with the American Law Network?

Susan O'Connor : Okay, just to set the scene a little. There are more than 600,000 attorneys in the Unites States who are licensed to practice. The law changes quickly, expertise is often geographically centralized in various parts of the country. There are always new attorneys entering practice and specialization is something that has come up as there are new areas, very narrow areas of the law that emerge every day.

So what we are trying to do is to save the lawyers' time, save them travel, save them expenses in trying to keep up-to-date with their colleagues across the country. We would like to make the program as convenient as possible for them to attend since they have clients to attend to. We are not only providers of programming, but ALI-ABA, also in conjunction with the Washington International Teleport, has set up our own network so that we provide hardware facilities for others who would like to use teleconferencing in educational media. So that if the registrants, if the attorneys are happy, then we as sponsors, we're also happy.

It's much easier to deliver a program to thousands of lawyers at one time from one city instead of taking our training around the country to multiple cities to present similar programs and the teleconferencing format also provides the opportunity to cover some of the remote areas of the country where our faculty may not be able to travel to; or may not be able to travel to more than once every ten years, so the bottom line is that if our prospective registrants are happy, then we as a provider are also happy in that we feel it's a good investment.

Doug Widner : Thanks, Susan—one observation relating to what you said. Dollars and income were conspicuously absent from your remarks appropriately enough, I'm sure. To restate, satisfying the continuing education needs of the law community would be your greatest measure of your return on investment?

Susan O'Connor : Yes, well, let's see. I am here speaking only principally for the certifiable learning as you have phrased it meaning courses that attorneys may take in order to receive credit to stay in practice as well as courses that for which the attorneys would not receive credit for attending.

Doug Widner : Yeah, let me make another interesting comment for those of you who participated in our last audiobriefing on teaching students to learn how to use the medium, a student of the American Law Network was interviewed.

He was from Nashville. He talked about American Law Network and how it fulfills the needs of the law community in his town. He talked about since you folks have been doing it since 1980 or '81 that I know of, others have come in and offered continuing legal education courses, some of which were, in his opinion, blatantly commercial and he was very adamant in pointing out that he did not find the blatantly commercial offerings nearly as satisfying to him as what he considered to be a more purely motivated service such as ALN. So you've got some good testimony coming in from there, Susan.

Let me open it up. Anyone want to volunteer a question on the issue of return on investment before I go on to our other discussion leaders?

Mabel Phifer : This is Mabel Phifer, with the Black College Network. I think sometimes in terms of return on investment, it's hard for us in terms of opportunity and access—if you were to try and measure the impact on individuals who don't have access to some of the information, that's almost immeasurable in terms of the value to students and to faculty.

So it's difficult to put a dollar value on the return in terms of the investment but if you would just try to multiply that, for instance, we have a hundred and some schools in the network and if you would take 50% of those who have now had access to a program that they normally would not have had, and try to just multiply in terms of dollars getting that particular person to a campus or a particular program to a campus, the return would be extremely high.

Doug Widner : Good point. Thank you, Mabel. Let me try again, if we have Ellen Damarosi or any other representative of the Catholic Telecommunications Network on the line?

Ellen Damarosi : Sure, I'm here.

Doug Widner : Hi, how are you, Ellen?

Ellen Damarosi : Fine, thank you.

Doug Widner : We'd really be interested in hearing your definition from CTNA's point of view on return on investment.

Ellen Damarosi : Well, I guess what I would have to say is similar to what the person from the American Law Institute stated. We serve our affiliates which are mainly Catholic dioceses. Our main goal is to satisfy their needs and provide them with information that is useful to them as well as inexpensive. And if we can do that, we look at that (as) being more important than financial return.

Doug Widner : Interesting. Let me move on to Stan. I'm going to jump around a little bit here. Stan, you have a similar indirect definition of return on investment, why don't you share it with us now?

Stan Huffman : Okay. If you're looking for a profit in a big business sense, I think you can forget that because you're not going to get big bucks out of this kind of business. The return on investment is more of an intangible,

and in Virginia we look upon it primarily as a factor in economic development. If we're able to retain the engineers that we have in Virginia, in the industries and retain the industries, we think this helps the economy of the state considerably. And consequently, much of the effort that we have put into this is to hold the people that we have, and thus look on to upon it as an economic factor throughout the state itself.

So, I think if you look on it as an investment in terms of what you can do for your people, I think this is a much better way of analyzing the return to begin with. In terms of the total dollars, you're not going to make money, large amounts of money, anyway, in this business of providing credit courses. You might as well be realistic, but it is a factor that is going to have to be subsidized and the intangible return is the more valuable concept.

Doug Widner : Great, thanks Stan. Let me break in again. Willi Bokenkamp, University of California, are you with us?

Willi Bokenkamp : Here.

Doug Widner : Willi, what do think of that, what Stan just said? Agreed?

Willi Bokenkamp : I think that that's probably very true. I think also when you're computing what your return on investment might be, you also have to consider whether the group that's providing the classes is also going to cover the cost for the receive sites or if the receive sites are going to cover their own costs, because that can make a difference in being able to get enough money to get a program started; particularly if you're dealing with a non-profit or a public institution.

Doug Widner : Yeah, thanks. Willi, stay on. Both of you, I'm sure, are familiar with the National University, or what's the Fort Collins network? National Technological University?

Stan Huffman : National Technological University.

Doug Widner : NTU, which is now an entirely a distance learning technology-based curricular program. Do you think they'd agree with you, Stan?

Stan Huffman : Probably not. They have to look at it a little bit differently. Their costs are considerably different from ours. They have an up-front cost to participate in their program and they also have a higher tuition than what we have. There is no up-front cost with us. The cost of participating is to equip your receive facility and then pay the tuition that we charge for the courses. They look at it a little bit differently than we do.

Doug Widner : Yeah, are you familiar with them, Willi?

Willi Bokenkamp : Just peripherally, but I think that that's true that their structure is slightly different.

Doug Widner : Yeah, there is a university, I believe, its name eludes me, but it's based in the Bay area out in your fine state that is offering courses now

completely by computer. Does that ring a bell?

Willi Bokenkamp : Yeah, I've heard of different groups that have been attempting to offer courses by computer, yeah.

Doug Widner : I've seen some of their literature and, based on their pricing, I would imagine, unfortunately we don't have a representative of that group with us today, but not to put words in their mouth, I would imagine they'd have to look at it as a cost recovery or money-making proposition as well.

Sally Johnstone : Doug, are you referring to the Electronic University Network?

Doug Widner : That's what I'm referring to. Do you think I'm right?

Sally Johnstone : Yes, absolutely. I mean there's no question.

Louisa Nielsen : This is Louisa Nielsen. One thing about NTU in Fort Collins is that they started slowly and built up to the position that they're in. You know they started out with videotapes and mailed them across the country to colleges and universities, 15 of them, for a number of years before they moved into the operation that they have now and one of the things that I think it makes it financially viable for them at the present time is that they got a $100 million grant from a number of places. One of the big grants came from NTIA to supply downlink C-band dishes to colleges and universities around the country that were going to participate and the original 15 who took the courses and then gave credit for them individually through the colleges and universities who got those dishes.

Doug Widner : That's a very good point, Louisa.

Louisa Nielsen : It's important to know that they started small and moved up to where they are now.

Doug Widner : I'm sure there was many a day when Lionel Baldwin wondered if he'd ever be profitable.

Louisa Nielsen : Right.

Doug Widner : Okay, thanks, for that. Time to move on. Joan, I'm sorry, I didn't get to you, but you're going to have a lot to say in the next one.

Joan Milczarski : Yes.

Doug Widner : Okay, it's time to move on to the next topic which is setting prices. Notice how carefully I avoided the term "fixing," which some of us have accused us all of doing at one time or another. Joan, we'll start with you. What are the issues that you have to consider when you think about setting the prices?

Joan Milczarski : Well, I think this actually goes back to the issue that we were talking about before, which is what are your goals in videoconferencing and I find that while short-term it may not be necessary to do more than cover costs for an organization like AMA, and we're a not-for-profit organization too, but for

AMA to continue to offer videoconferencing five and six years down the road, we have to do more than recover direct costs in order to be able to continue to finance it.

I wish I knew the magic answer as far as the right price to charge. We're still feeling our way as far as that's concerned. But, absolutely, what you have to take into consideration are the direct costs that you need to recover, the size of the audience that you think you may be able to attract. I certainly haven't gotten to the point yet where I'm able to make any absolute predictions about this at all. I find in videoconferencing that most organizations are extremely price sensitive.

Another issue is the long-term commitment of your organization to what you're doing. What kind of growth do they want to see and what costs go directly back to the program in your organization? And I find, in my case, at least, that this can work both for and against you. I have some staff here at AMA who are actually involved in my programs in various ways, but they're not charged against my programs, so in that way I benefit.

But because videoconferencing is out of the mainstream of what AMA does, there are certain services, for example, our registration area which handles our public seminars—I can't really have registration for videoconferencing come into that area because it's a different animal and it just wouldn't work, to lump it all together. So in that case, that becomes a direct cost to me whereas it's not necessarily a direct cost for other areas of AMA.

Now, I wish I knew how to add this all up and come up with the magic price range that would attract the audience that you need in order to either return your costs or make some kind of profit on a program, and at this point I would have to say that I have no final answer on that at all and we're really experimenting.

Doug Widner : You would probably say that a comprehensive market survey would be almost impossible.

Joan Milczarski : Well, I think you can try that. Certainly we do surveys in terms of what topics people want to hear and what topics they want an outside provider to offer, how many videoconference programs they're running at present, what types of people that are training in those programs. But I don't think you can always take your surveys on total faith because sometimes people like the idea of something, but when it comes right down to it, they're not necessarily willing to pay for it.

So this is where you get back to essentially your gut instinct.

Doug Widner : Right, and you're ability to experiment, which also goes back to your point about having long-term support from your management.

Joan Milczarski : Yes, I think that's absolutely essential if you're going to get into this, particularly considering the costs that are involved in both the marketing and on the production side. Because you definitely have a high ticket item here. And what I find interesting is very often the audience for the programs has no concept at all of the costs that are involved in producing them.

Doug Widner : Thanks for those comments, Joan. While we're on the group training and information as opposed to our curricular/certified distance learning groups, let me see if I can grab somebody else from our participating audience who has done, I know, teleconferences or videoconferences.

I know South Carolina Educational Television has been involved for years. Is Bobbi Kennedy with us? Not yet. Okay. Let me see. Did anyone from Beach Associates join us yet? Okay, Larry and Crickett, I'm back to you. You still with us at West Virginia Research and Training?

Larry McLaughlin : Yes, we are. I wanted to comment on something. Getting back to the whole thing of experimentation in this industry and the fact that things really haven't shaken out to a point where you have reliable algorithms in terms of what kind of market response you get for programs and so forth.

We have found that, in our experimentation thus far, within our market, a lower price has obtained for us greater numbers of participants in some of our videoconferences. And we know that, with this technology, we certainly have an opportunity to achieve economies of scale and that's something that we're really going after.

However, we certainly haven't learned the formula, either, because while we've been able to account for some programs giving us volume with certain audiences, others have not, and so we don't know the solution to that problem, either.

Doug Widner : Yeah, well, before I move on to our other group representatives, let me just open it up to the group at large. Does anybody out there have a magic answer for the pricing formula? Okay, I'll throw the baton then to Stan. What do you curricular folks have to say about this matter of setting prices?

Stan Huffman : Well, setting prices at the curricular level, particularly if you're doing credit courses, is really not something that we can deal with. That is set by the university, in our case, the Board of Visitors, which makes the final decision as to what our tuition will be. Therefore, we charge that amount of money for the courses that we offer. So we really don't have a pricing factor there.

In the non-credit area that we get into, we use a gut reaction to what the market will bear I guess as much as anything. I recently did a Fundamentals of Engineering Exam review course commonly known as VIT to a number of people and we just pulled a figure out of the air that we thought would give us the return we needed based on our production cost and expected attendance. We came close; we didn't make money on it. We're going to repeat it in the fall at the same price, but do a better job of marketing, so as far as credit courses are concerned, those are pretty well set. The others, we have some variation, but I don't have a magic answer either.

Doug Widner : Yeah. How about Louisa Nielsen?

Louisa Nielsen : Well, I don't have any real formulas for that. I think what I've heard so far is really quite good.

Doug Widner : Well, Louisa, speaking as the Broadcast Education Association, or from that point of view, is what Stan said about his having little or no control over his pricing at Virginia Polytechnic true with most curricular distance learning providers?

Louisa Nielsen : Well, I think that you really have to look at the facility and what you're expected to cover in terms of monthly fees at the university. What would the university expect you to come up with in order to cover the budget you are allocated, and you have to use that as a gauge to see how much you're going to charge.

When I was at GW, most of the downlinks were free to students and faculty. To get them in to watch anything was nearly impossible because they're so busy with their own lives. To get people to come in from the outside was always pretty tricky because you weren't sure how much they were willing to pay.

We found that most of the things we got more people in for were the pre-packaged, glitzy things that we could get a school to advertise because they knew that the product was going to be good like the TI teleconferences which really were mostly presentation and a few questions at the end. But people thought that they were getting state-of-the-art cutting edge information and, therefore, we got a lot of folks in on that.

The others, we had trouble pricing; if one of the departments like the business school came up with something in continuing education and law, we would send information out to all the alumni in the Washington area and most of them actually stay in the Washington, DC area. We found a lot of those people were very busy in their daily lives and got their continuing education either through in-service or through the Bar Association or whatever professional association they belonged to. So we found it difficult to draw people in except for the glitzy stuff.

Doug Widner : Yeah, I don't know if you have any first-hand experience with this Louisa, but I heard that the Peter Drucker conference that the engineering school there puts on and that you folks or GW-TV has been involved in distributing, is high-priced.

Louisa Nielsen : Yeah, they are. That's a curious situation in which, when I was at GW-TV, that was just beginning and the TV station was saying, "Look, University, you've put us in a difficult situation by giving us this station, telling us to run it, find college courses to put on it and we have a limited engineering degree to deliver. What do you want us to do, we've really tried everything." And the University said, "We don't know," but once that call was put out, the man who runs the Continuing Engineering division said, "I got this great idea. I've got Drucker and we can tape him and lots of people want to hear him, so let's do that." He set the pricing structure.

This man is a wizard at continuing education. He gets a lot of people from the military to come in and speak about all sorts of continuing engineering issues

for people around the country and they bring their own cadre of people to see these things and charge lots of money, like $800 for a three-day course. Therefore, this guy has the mailing list that he has acquired over the years and when he says that Drucker is going to be there and that it's going to be good, these people trust him and they flood in, and they don't care what kind of money they spend because they have the allocations in their budget to go to these GW Continuing Education seminars.

Doug Widner: Yeah, it's interesting the pricing in the whole engineering programming area seems to be all over the place and there seems to be a lot more, not that Drucker is in the engineering area, but coming out of the engineering school, I've seen prices from thousands of dollars per site for an event down to a couple of hundred dollars and nobody seems to be able to make an accurate call all of the time.

Louisa Nielsen: Well, one of the reasons that GW does get a lot of people coming to their courses and they can charge a lot of money is that they get top people from the Defense Department and a number of government agencies that a lot of folks in other agencies or in private corporations want to get access to. These seminars that basically have 20-25 people in a room with this person speaking give these people immediate access they would never have any other way. So not only do they get the information, they get personal conversational contact.

Doug Widner: Thanks for that input. Let's move to Susan and get her point of view on pricing from the certified group.

Susan O'Connor: Well, I agree with much of what Louisa said in her last comments. I think one thing you have to consider are the alternatives available to your prospective registrants. Is the alternative to attending your program that they would not have access to that material or would not have access to the national experts? Would an alternative be to attend a course across the country that would take them out of their office for three days incurring a lot of expenses. That's something that you have to somehow factor into your price.

One way to experiment with your price, even if you're set more or less with a price, is to think about offering group rates, you might try two-for-one programs whereby you would get more bodies into your audience, meaning more people would benefit from the information. You might also consider a series discount, subscription basis that would be used by as many people as desired by people in the firm. These are ways to play around with the price even though you may feel that you are fixed with this magical figure that you have come out with.

Doug Widner: Those are good alternative suggestions. Susan, I'm going to make a statement and put myself in a position of one of your constituents and you tell me whether that statement is true or false.

Susan O'Connor: All right.

Doug Widner: I don't live where I can get good continuing legal education

programs on a regular basis; therefore, I am willing to pay more to get them from ALN via satellite. True or false?

Susan O'Connor: Okay. Let me say something about our competitors, what the alternatives are to our programs. There are many local and state bar associations that offer programs on similar subjects for a much lower fee. Our fee tends to be higher for many of these local programs, but we feel that what we are offering, in terms of the talent and the currency of information would encourage people to attend our programs. So, whether that's a yes or a no, that's for you to keep in mind.

Doug Widner: But you do point out something that I know Joan has run into as well and that is the inevitability of cheaper prices coming from similar locally produced programs.

Susan O'Connor: Right.

Doug Widner: Joan, I want to ask you a different question, but react to it the same way Susan did. Getting an American Management Association seminar over television regardless of whether or not I can pick up the phone and make a call to the instructor, is not as good nor as effective as a face-to-face seminar. Therefore, I certainly would not pay as much for it.

Joan Milczarski: Well, I think it's awfully hard to compare what we're doing in videoconferencing with the face-to-face seminars because first of all, the videoconferences that started out with one five-hour program in 1985, but right now we're down to two hours and the typical AMA seminar runs for two days.

And then, of course, you have other costs frequently associated with going to a seminar. Many people travel. So you've got your travel and expenses and time out of the office, so I think it's really—many of the organizations are installing satellite dishes, and those are really the organizations that I'm marketing to rather than to the end user per se. One of the reasons we're doing it is to save on cost and to save on peoples' time away from the office. So what are we competing with? It's not that we're competing against ourselves with public seminars.

I think in many cases we're competing with the cost of in-house training. What it would cost if they brought someone in to design a program if they had one of their trainers design program that was then delivered by someone else, or if they went out and they bought an already packaged training program and had someone deliver that, perhaps with a few modifications.

And they're looking at, in many cases, at the per person cost of training someone that way, as opposed to the per person cost of training them through an AMA videoconference. And the way I see organizations going, is in many different ways, because they have so many people to train frequently and have so many different needs, I think they're going to be meeting those needs in a variety of ways, so one doesn't necessarily cancel out the other. But I think that's partially at the root of some of the price sensitivity that I've seen.

Doug Widner: To get back to something you mentioned earlier, I want

to underscore it to make sure that I understand it. You think that one way to handle your competition is to make sure that you have some product differentiation.

Joan Milczarski : Yes, absolutely.

Doug Widner : Well, let me take that idea across the street to our curricular group and ask Stan whether you think it's important to have some product differentiation between your distance learning curriculum and your on-campus curriculum.

Stan Huffman : I'm not sure that I can really provide you an answer to that. The differentiation that we have is almost non-existent because it's the same course that we offer on campus as we offer off campus. The only difference is that the students don't see the instructor live; they can interact with the instructor by asking questions, they get the same tests, the same exam. So, I suppose we're really not differentiating in that sense, Doug.

Doug Widner : Yeah, it sounds to me like you're doing exactly the opposite and that's trying to avoid differentiation.

Stan Huffman : I guess that's what I was trying to say—that we're trying to avoid it. We have had an external evaluation team with us from the beginning of this thing and the students out there in most instances have indicated that they feel that they're getting an equivalent education to those students who are on campus, and they've been very satisfied with the program because it is like what they would get if they were on campus. The main difference is that many of them do not have the opportunity to go to campus to get the courses or the advance information, and they look upon them as an opportunity to be back in school and get what they need without having to leave home and I think they look upon it as not being treated differently.

Doug Widner : Let's see if some of your colleagues concur. Willi, are you still with us?

Willi Bokenkamp : Yeah.

Doug Widner : Would you agree with Stan?

Willi Bokenkamp : Yes, I think that the reasons that students take distance learning classes with the university is because it's offered by the university and they know that they're receiving exactly the same instruction as students on campus are receiving. We don't offer classes that are set in studios. They're sent by video from classroom so we definitely don't want to differentiate it in terms of that.

For the students who are in education and medicine that receive grant funds basically; they're interested in the topics that are presented, and so, we don't really have to have a differentiation problem there, either. So it's basically not differentiating.

Doug Widner : That's a real interesting distinction and I apologize for not calling on you very well. That was Willi Bokenkamp from the University of California.

Louisa Nielsen : This is Louisa Nielsen.

Doug Widner : Yes, Louisa.

Louisa Nielsen : Yes, I think from the people that I've spoken to from around the country who have two-way audio, one-way video, that most of their students find an equivalent education, but one of the things that they have mentioned to us, particularly in the urban areas, is that distance education should really take on another part to its definition—equating distance with the amount of time that one has to sit in one's car going from, perhaps, a beltway situation we have in Washington, DC. Sitting in your car equals distance versus mileage equals distance.

Doug Widner : Yeah, you bet. Very good point. Before we move on, let me just throw it open again. Anybody have any other comments to make about the pricing perplexity or about this product differentiation we've been getting into for the last couple of minutes?

Sally Johnstone : Doug, this is Sally Johnstone from Maryland. Just a comment on both of these issues. In terms of pricing, that's an ongoing debate, by the way, among the producers that are involved in the National University Teleconference Network that goes around and around and around and we have lively discussions about this and no one has ever come up with a solution.

Doug Widner : Okay, that's a good point.

Sally Johnstone : It's discussed everywhere, but no one's ever figured it out it seems. Perhaps we need an Einstein in pricing.

Doug Widner : I've got to ask you Sally, do you think that Ford ever went through this when he was trying to price the first Model T?

Sally Johnstone : No.

Doug Widner : Well, that's a good strong opinion.

Sally Johnstone : In terms of equivalency, though, from the credit viewpoint, I think it's interesting that in numerous studies that have been done on crediting agencies nationwide, the decision has been made that students taking the courses via a teleconferencing medium, particularly one-way video, two-way audio, will not be differentiated in any way or the course will not be differentiated in terms of, let's say, it's being on a transcript. It's considered the same thing as a course taken in the classroom.

Doug Widner : I'll be darned.

Stan Huffman : And I might comment on that one. The records here at Virginia Tech indicate nothing that the student has had by television. It's the same as any other course that they may have had. Along that line we will have graduated 27 students, I think it is, who have been a part of this program for the last five years.

Doug Widner : All right, congratulations, that's great. I have to,

before we leave it all together, just round out the discussion on product differentiation. If it's important to be avoided; most of all to Susan, in the certified group, do you think that ALN's programs try to be different from their face-to-face counterparts or do they try to be like them?

Susan O'Connor : When you're comparing a three-and-a-half-hour course to a three-day course, I think that you'd have to say that we do differentiate between our live courses and our teleconferences. We try to emphasize the convenience and the concision with the teleconference format because I think that's important.

Doug Widner : So that puts you in the same group with Joan and the training and information group.

Susan O'Connor : Right.

Doug Widner : And it's also interesting to note that you two groups are more dependent upon direct sales of your product to either the licensees or the consumers, and the curricular people are being paid for in many cases through a circuitous route, like in Stan's case being a land grant institution, money largely coming down the same chute that it comes down for the whole university. So I guess you price according to how your relationship to your market, but that doesn't solve any of your dilemmas, does it?

Okay, let's move on, if we have no other questions, we'll pause for one more second. Anybody else?

Okay, we'll go into the final segment of today's audiobriefing, and, Joan, we'll let you start this one, too, and the topic is generating revenue through other means other than tuitions or fees or licenses. I know a lot of things have been tried and I know you've has some success.

Joan Milczarski : Well, I think that the first thing AMA tried, not so much to generate revenue but probably to spread the risk, was the first series of programs run with the cooperation of the U.S. Chamber of Commerce. And then the second series that we ran was in cooperation with PSSC itself. And obviously if you're getting started in any programming like this, it helps to be involved with people from another organization who can not just help with financing, but also bring expertise from a different kind of area. So hopefully what you create is a kind of synergy and that synergy will hopefully lead to better results.

Now, other ways to generate direct revenue would be through videotape sales or rental, and this is something that AMA tried with the secretaries' program we ran in April. We know that there are a lot of other organizations who do it, but prior to that program, we've been in the business of trying to do repeat programs, taking each program and essentially running them twice a year. And we decided that that wasn't really working for us partly because of the limited size of the market.

So once we switched over to programs that would only run once, that allowed us to get into the business of both licensing people who are already downlinking the program to make a videotape of it while they were downlinking it, and also selling

videotapes of the program to organizations who either didn't have downlinks or weren't able to receive the program at the time that we were broadcasting.

We think that this is going to be a growth area for us. We haven't really gotten into it at this point as much as I think we can in the future. I'm also looking at the possibility of videotape rentals, but that would be a long way down the road because in order to do that, you really have to have the administrative system and the staff set up to handle it, and right now I could do it through my film/video area and that would be the only way.

Now another way to generate additional revenue and, again, coming at this from a couple of different angles, is the sale of ancillary program materials. When AMA first got into this business, speaking of pricing, we were charging a license fee per organization per site, but we have had quite a few requests for additional copies of the program materials and, because of our current pricing structure, we've got a license fee for each organization that ranges between $329 and $399 a site. We're supplying them with 20 copies of the program material, and we're saying if you have more people, make copies. But a lot of people don't want to make copies. They want us to sell them additional program materials.

So we're looking at ways we can do that while still being able to maintain an inventory to satisfy our other licensees. And it's a little bit difficult when you're doing a one-time event because you don't want to print twice the number of program materials because you'll never use them again if you're only doing one-time programs.

Another way we're looking at, and again, we're really just getting into this but I think this is going to be growth area for us in the future, is sales of other AMA products to people who have either downlinked the program or attended the videoconference at the sites, and I think that this goes back to what someone else was saying about bringing in audiences who would not necessarily be able to participate in your programs in any other way.

Because it means that you're reaching a whole group of people, and if this group of people has had a positive experience with the videoconference we're doing, they're probably going to want more of your products and services. And you have to find a way to provide them with it because that helps your product line, but it also helps the organization as a whole.

The way I look at the videoconferences that we're doing, I see it as almost a showcase for a lot of the services that AMA already has for the books that we publish, for the films that we produce, for the research reports that we produce. A lot of these things can be featured on our videoconferences and will benefit people that are watching the videoconference; there's also the possibility that they might want more of these products afterwards.

Doug Widner : Thank you, Joan, that was a cornucopia full of alternative revenue ideas. Many of which were new to me. One I didn't hear you mention and that was on-air sponsorship.

Joan Milczarski : Well, that was another thing that we tried, we're very experimental these days. For the program that we just ran for secretaries in April, we did have Federal Express as a partial sponsor for the program and that cut two ways. Partial sponsorship gave them 55 sites around the country, it gave mention in the credits as a partial sponsor, and it also gave them, out of a two hour broadcast, it gave them two minutes of commercial time.

We're still getting feedback—we have gotten some negative comments as a result of that. I think there are other ways to handle sponsorship; rather than doing direct commercials, you can get a representative of the organization to do a two-minute brief welcome to the audience, you can go the PBS route, or what used to be the PBS route, which was, "AMA wants to thank Federal Express for helping make this program possible" sort of thing.

Again, I think it's something that has to be experimented with. I also use group sponsorship with doing the program in cooperation with another organization. That's sort of a broad category and direct sponsorship is one subset of that. I can see that that might possibly become more of an avenue in the future.

Doug Widner : Great. Thanks for that comment. I hope a lot of people were scribbling early on in your remarks because you've given them a wonderful way to introduce the idea of added revenue into their non-profit management structures without any danger or hesitancy and that was the expression, "spread the risk." I love it. I think you've got to use it more often.

Any comments on Joan's ideas or any other ideas on additional revenue methods or sources before I move on to the other two groups?

Jose Luis Rodriguez (Hispanic Information & Telecommunications Network) : To what extent then is the acquisition of receive sites important in promoting and expanding the distribution of your service?

Doug Widner : That was Jose Luis Rodriguez of the Hispanic Information Telecommunications Network.

Joan Milczarski : Okay, well, perhaps I should explain how it is that we market. I'm marketing to organizations like corporations, hospitals, colleges who then may turn around possibly and remarket our programs almost like a seminar, so that makes AMA a manufacturer, and in most cases, I'm marketing to the distributors of my product.

Jose Luis Rodriguez : Aren't colleges having a problem downlinking in the urban cities for you?

Joan Milczarski : Well, it's not a problem for me because I'm not doing it. What I'm doing is uplinking. Now, of course, it becomes a problem for me when organizations don't receive the signal clearly. Whether it's a problem with their equipment or whether it seems to be a problem with the signal that we're generating, because in this business, even if you haven't done it, you've done it. Because if it's part of your broadcast, it's part of your problem.

I don't find, considering the size of the audience, that the technical difficulties that we've had are out of line, but of course I would certainly much prefer to be in a situation where we didn't have any technical problems as far as the receive sites are concerned.

Jose Luis Rodriguez : Have you used any ITFS distributors, and that's my last question, Doug, to distribute the signal out on a local level?

Doug Widner : I think I can answer that question, Joan.

Joan Milczarski : I'm not quite sure.

Doug Widner : I think in April, we did have an ITFS redistribution situation in Arizona.

Jose Luis Rodriguez : How successful was it?

Doug Widner : I think it worked fine.

Jose Luis Rodriguez : Thank you.

Doug Widner : You should also understand though, Jose, that AMA's programs are uplinked on both C- and Ku band. So, people with congested urban problems are always encouraged to use the higher frequency Ku-band. How are you doing, by the way?

Jose Luis Rodriguez : Fine, thank you.

Doug Widner : Welcome aboard. Any other comments from the peanut gallery before we move on to our other two groups?

Larry McLaughlin : This is Larry McLaughlin with the West Virginia Research and Training Center.

Doug Widner : Larry, how did you know that I was going to call on you next?

Larry McLaughlin : I think Joan is touching on something that is very significant. She started to describe a model for marketing these programs that is very much like the traditional model that exists in relative businesses in America; that's the manufacturer/ distributor/retailer model. This may be something that would help the industry settle to where we can participate in formulating prices.

One thing that we're trying to accomplish with national services like AMA is to provide a local market intermediary and what we hope to do, at least to benefit the national service, is to absorb some of the marketing costs that are put out by some of these national services. If they're in the business of producing, if you're in the business of distributing and marketing, that's a pretty tall glass of water and I think that's going to result in some fairly exorbitant costs for the national service.

What we're trying to accomplish is to take some of those marketing expenses, which everyone has pretty much agreed have taken up half of the cost and brought it to the local level to the point where perhaps those marketing dollars are spent with more potency.

Doug Widner : It's a tough row to hoe. But thanks for bringing up that approach. I should also add, too, that PSSC is trying to get Joan on behalf of

AMA to publish on AMA's Seminars by Satellite and AMA by Satellite experiences and she keeps reminding me that from a purely business perspective, that's the stupidest idea she's ever heard.

Okay, we are running out of time, let me quickly ask for a comment on this whole issue of alternative revenue streams from Susan O'Connor, representing the certified group.

Susan O'Connor : Well, I don't think audiotapes were mentioned. You can also distribute audiocassettes from the videotape of the program. It might also be suitable to excerpt pieces from your program for shorter articles. We have three audio magazines that we distribute, and oftentimes, a 10-minute tidbit here and there from the program is widely used. You could also sell transcripts of your entire programs or portions thereof, although that's not something we do at this time.

Doug Widner : Those are very good points. Stan, from the curricular point of view, additional revenue sources.

Stan Huffman : I think they have covered all the bases in terms of revenue. We don't do anything as a secondary market for the materials which we produce in terms of the credit courses.

Doug Widner : What is your *modus operandi*, just to keep sending the lobbyists back to Richmond?

Stan Huffman : Yeah, we just keep sending the lobbyists back to Richmond in large measure. I guess we have a different perspective in terms of the curricular area from many of the other things that have been said. In terms of the way we do our marketing, those kinds of marketing tools that we use, what we do for secondary markets, how we price. The whole area of curricular considerations, if you're teaching credit courses, I think comes under a slightly different purview than if you're doing continuing education, non-credit activities, one-time ad hoc teleconferences, that sort of thing, so we're really in a slightly different ball game.

Doug Widner : So the final question, is distance learning a business or a social service, in your world, it would have to be as much of a social service as any higher education.

Stan Huffman : I think in our situation, while we try not to lose too much money, we have to look at it as a social service or a professional service to have people become enlightened in various subject areas.

Doug Widner : I guess that question that begs asking is it necessary that a social service lose money. And many of us non-profit organizations that are spending a lot of time in social service areas would hope not.

Well, we're about there. We're about 60 seconds away and I promised this lively group that I would end on time whenever possible. I may entertain one more question if someone is dying to have the last word.

Mabel Phifer : I don't have a question, this is Mabel Phifer, but I do have a comment that I think, in this industry, there is room to provide social

service and to make a profit. Even though we're aligned with colleges and universities, this must be a self-supporting operation and we have been able to make a profit.

Doug Widner : Thank you, Mabel, I think that was an inspirational last comment for a lot of us. And on that note, Joan Milczarski, AMA, thank you for being with us. Susan O'Connor, from ALI-ABA, thank you. Stan, from Virginia Polytechnic, as usual, thanks for being here.

"Technological Invention and Educational Innovation:Conflicting Perceptions "

A PSSC Member Audiobriefing

July 13, 1988

Doug Widner : Hi. Good afternoon everyone. I'm Doug Widner for PSSC and this is the fourth in our series of six member audio briefings on distance learning. The formal title of today's briefing is, "Technological Invention and Educational Innovation: Conflicting Perceptions." We put the colon in there to give a feeling of familiarity for our members of academe as well as any journalists that may be joining this conference from Time Magazine. To all of you that have joined us today I extend a sincere thanks.

I realize that we have an off month for education, distance or otherwise. As a matter of fact, I'm reminded of a story a junior high school teacher once told me that I should use summer time to read, reflect upon, and reconsider all of the knowledge that I obtained during the school year, and it wasn't until years later that I learned that this particular teacher spent all summer drinking beer on a house boat in Lake Powell. In the spirit of summer we're going to be a lot less formal in today's session.

Today we're going to practice the oral historian's art, that is the art of story telling. The gracious people who have accepted our invitation to provide stories have assured me that what they are about to relate is true. These are not stories in the tradition of fiction. We're going to hear stories about implementing distance education projects, about marketing, and about working with talent, about technological vagaries, and I hope we'll have time to hear one or more stories about international experiences, and a story or two that we can only categorize as "I wish they would happen."

Now, before I introduce our invited story tellers, allow me once again to point out that this audio briefing is a part of PSSC's year-long series of audio briefings on distance learning. Transcripts are available for all three previous audio briefings at no cost to those who participate. If you find some of today's stories absolutely priceless, you'll be pleased to learn that we don't intend to put a price on them either and you can have a transcript of today's audio conference free of charge as well. Call us if you want a copy.

Though we don't intend to be too formal today, let me remind everyone that our pre-arranged speakers are discussion leaders, not presenters. We do not believe that audio-conferences ought to be lectures and in spite of today's special format, we're going to let

you do as much talking as you want to do. We invite stories from everyone. Periodically, I'll pause and give anyone a chance to interrupt and if you don't have a story but would like to ask a question of someone who has had a story, please feel free.

Okay, a little bit of description about our cast. Lou Bransford is President of PSSC, one of the youngest old-timers in the field of distance education. Believe it or not, this is Lou's first appearance as a discussion leader in PSSC's year of distance learning audioconference series. Lou, thanks for finally showing up.

Lou Bransford : Thanks for the invitation, Douglas.

Doug Widner : Louisa Nielsen is with the Broadcast Education Association, formerly with George Washington University, a regular participant in our series and a great story teller. Louisa, good afternoon and thanks for being with us.

Louisa Nielsen : Thank you. Glad to be here with you.

Doug Widner : Virginia Ostendorf is chief cook and bottle washer at Virginia Ostendorf, Inc., a Colorado company of seismic proportions in the fields of teleconferencing and distance learning. Virginia, thanks a lot and welcome.

Virginia Ostendorf : Good afternoon, everybody.

Doug Widner : All right. I wanted to start off our first story with the subject of implementation and I coerced my boss, Lou, into telling us about the Satellite Technology Demonstration, otherwise known as the ATS Program, that almost 20 years ago pre-figured much of what is going on today in educational telecommunications, especially with the new Department of Education's Star Schools Program. Lou, take it away.

Lou Bransford : Thank you Doug and hello everybody. When we first got involved with the Star Schools program last year, there was a distinct feeling of *deja vu*, like we had been there sometime in the past . . . From time to time we had to remind people that we had learned quite a bit in our 17, 18 years of use of satellites in distance learning. But there were many, many similarities, many patterns that we experienced in STD that were part of our discussions in planning for the Star Schools initiative, of which I assume you are all aware.

The STD, as I recall back when we first started fighting in 1970, was the first major use of high-power satellites, delivering services to people and places primarily in Alaska, the Rocky Mountains, and Appalachia. Distance learning was not used as much as it would seem and continuing education may have been more utilized throughout, but I would say distance learning has been the focal point of much of our effort and clearly was the driving force in much of our work with the STD.

I think back to what issues were driving the system and it was technology. Technology was exciting. There was a novelty to the use of satellite-delivered programs. It still is for those who are at the novice level in the use of technology, particularly in the

schools. We had many discussions with people interested in Star Schools and they were being driven by technology. In retrospect, we all can simply conclude that technology, and the novelty of technology, was the result. In fact, our proposal provided very little new technology. It was predicated on use of existing systems and hardware. In fact, we budgeted more for mailing tapes, for video tapes and computer disks than we did for transmission, and that should tell us where we've been and where we're coming from.

The issue that remains common throughout is programming. We didn't have programming then, and we don't have enough programming today. There are distinct voids in the quality of programs, and quantity, to be able to offer a course of study, in any discipline, for a year-long experience. That's still definitely the greatest need and I suspect, of the 60 proposals that were submitted for Star Schools, requesting an excess of $140 million, that three fourths of it's going to be programming and ultimately the technology itself, at least in year one and year two, will be second. I think that's very encouraging.

Doug Widner : That's what you think will be funded?

Lou Bransford : That's what I think will be funded.

Doug Widner : But what do you think will be requested? That same proportion holds true?

Lou Bransford : I suspect that those requesting technology will not receive any major source of finance. There are certain things that you can do with one year of funding and the schedule itself is dictating what you will be able to do in year one. By the time the money flows in October, November, it will be too late to do anything for the second semester and for someone to request any significant amount of dollars for delivery of services, in year one, I think will be futile.

Doug Widner : I guess what I was getting at, is there still a predisposition toward investing in the technology on the part of the people out there . . . do you think a lot of the people requested money for equipment, systems, that kind of thing, like the kind of things were being tested in the STD days? As opposed to programming?

Lou Bransford : There was a mixture. Part of it was motivated by the guidelines that no less than 50% of the dollars could be spent on the technology part. I think with the exception of those that were somewhat seduced by the money, the programming support will receive the major dollars. But let me get away from that and talk about some of the problems we experienced and I believe some of the problems that we have long term, and some of the difficulties that we encountered.

They were studying technology, and not in programming, but rather in non-technical matters like bus schedules and getting the universities to agree on how much credit they were going to give for a course of study. We ultimately never got any consensus. For some of the courses that we offered there was no credit for one hour, two hours, three hours. For some they required a

Saturday morning class once a month. Others, papers. We finally agreed to let each institution determine what they would provide in credit. I think that attitude prevails today. The autonomy of institutions of higher education often dictate what you can and cannot do with a distance learning program.

Doug Widner : The bus schedules are still going to get done.

Lou Bransford : The bus schedules, particularly when you're looking at rural communities where you have many kids that go beyond that one class in science. At the end of the day you have a bus driver that probably has to get home to do something else. You have teachers that probably have to drive. You have parents with day care arrangements that have to pick up children. You really can't plan outside the traditional school day, with any confidence that you have an audience and, in fact, this is becoming a problem in some of our city schools for other reasons. The schedule that we finally worked out at STD was determined by when the buses arrived at school. And I believe that might be true today.

Doug Widner : Now for the benefit of some of our people who may not remember the STD Program, I don't think we mentioned dates, did we? We're talking 1974, 1975.

Lou Bransford : The planning started in '70 and the satellite was finally launched in 1974 and we used it in '74 and '75.

Doug Widner : You know, there are a lot of people out there, me included, that think we are doing this for the first time.

Lou Bransford : We can go back even farther than that, to ATS-1 and ATS-3, prior to the ATS-6.

Doug Widner : Well, now remember, Lou . . . you were just a young man.

Lou Bransford : I've been in this for 20 years, Doug, and we're still doing some of the same things. When you asked me to speak, I said, "Doug, I don't know if I can tell stories because I've been a part of more bad events than good events over the 20-some-odd years that I've been in the business." But for our purposes here it's interesting to compare some similarities and some differences and, what's the expression? "Everything that goes around, comes around." It doesn't change that much. There are still some underlying issues that need to be resolved and programming is at the top of the list.

Doug Widner : I think probably second in the list of unresolved, or at least unperfected, issues in distance learning has got to be marketing and there are a lot of people, at least today anyway, who are in a position of having to sell their product. For the most part, distance education these days has to be sold. It is a product and learners are consumers. And we've got a couple of good stories about marketing, and one of them is from Louisa Nielsen; "Urban vs. Suburban Marketing," Louisa?

Louisa Nielsen : Yes, Doug. Thank you. Lou, when you were speaking about the issue of programming, I was also thinking about something that I had heard when I first came to work in Washington in 1976. I went to the Brookings Institute for a lecture by the late Ithiel de Sola Pool and he was speaking about technology, particularly satellite technology, which was really just taking off then in terms of communications, and he said that he predicted that one of the problems that we would have in the next decade, and even the next two decades, would be the issue of programming catching up with satellite communications. That we would always have wonderful technology, but it would always be ahead of our ways to find quality applications for it, and indeed, we're experiencing that very problem.

To follow that with my urban-suburban story, I related to Doug in our conversation last week that when I was at George Washington University, we belonged to the National University Teleconference Network, and as most of you know who belong to NUTN, there is a marketing capability at NUTN and many of the universities that belong to NUTN produce programs and make those programs available to the entire network and NUTN then sends out pieces of information about those particular programs.

As an urban university, a very urban university (George Washington University is in downtown Washington), we wanted to participate in downlinking programming, as well as producing and uplinking programming, and in order to participate in this grand experiment with NUTN during the first year, we tried to downlink a number of programs and we found that it was very difficult within our urban area to find people who would want to come to these sessions, and it was surprising to us because we were very involved in the technology, we were involved in the beginnings of this new teleconference network and we thought it was the bees' knees. We thought that everyone would want to come to GW and watch programming on various topics that would be educational. In fact, people could even get continuing education units for, or in some cases, a credit or two for university level education. We found that to be a real complexity. I don't know that it was a problem, but it was a complexity. I don't even know that it has been resolved. I've spoken to people there and it's still a problem.

One is, of course, the level of programming. Many of the programs originally coming out of NUTN came out of Oklahoma University which had a very rural focus for its own programs. So, as they were designed to supply information for the needs of rural students, some of them did not play real well in an urban setting, or either were not sophisticated enough or did not draw a crowd.

One of the ones that I do remember is a program for social workers and we thought, "This will be a great program." It was focusing on the needs of social workers as professionals and also focusing on the professionalism in relating to their cases and those people in those cases. We thought, "Great, we'll work with the D.C. Chamber of Commerce to get the information out and the D.C. Department of Social Services and many of the schools who

offer master degrees in social work, and on and on and on, with our own marketing scheme.

Our marketer stepped forward and began to put those pieces of information together and got them out and we found that we really only had 20 people who signed up for that. And for the amount of money that we charged for one to attend the seminar on our campus, we thought that we were going to have more people, we had projected about 50 people and we only got 20. So not only did we not cover our costs, but we lost money in signing up for that downlink.

A number of the people who were attending that session found a lot of the information to be on a very basic level and it didn't particularly deal with a lot of urban issues that social workers have to deal with. A lot of the crime, a lot of the possibility of being killed if you go into a particular residence, and the kinds of stress levels that that has versus the stress levels that were described in the program, which were more sort of empathetic stress levels . . . social workers being overly concerned about their cases and those people in those cases.

So, not only did we have a complexity in marketing, in terms of losing money and not being able to count on a large number of people coming in, we also had a complexity in terms of marketing the content. We had not expected that. We didn't expect it because we were given a synopsis and we were not given a level of information quality or content. Subsequent to about six months of programming through NUTN and marketing, a number of people brought this issue up. I think perhaps that it is still being discussed throughout NUTN and with their members. I know that Sally Johnstone is supposed to be on this line. Sally, are you there?

Sally Johnstone : Yes, but I was going to get Kay to back up what you've just said.

Louisa Nielsen : Okay. Sally Johnstone is at the University of Maryland and Sally, representing Maryland, has been in cahoots, as it were, with GW in a friendly fashion to try to look at this urban issue and to try and look at getting people in.

Because often, the other point about the urban issue is that we try to draw from the student body and in the District of Columbia, as you can guess at any major city, students are doing all kinds of internships that are extremely interesting and extremely challenging and at a very complex level, and they can gain more information by being at their internships or their jobs which are supporting them through school than coming to what they might consider our dinky video conference. So very seldom did we have students from campus. We more than likely had people from the outside who needed more information on the subject matter, and also people who wanted to see what this videoconferencing stuff was about. They were also inquisitive about the technology and maybe employment in the D.C. social work system or whatever it was going to be.

So there were various reasons for people coming, but it was interesting that we couldn't get students from around campus, nor could we get faculty from our own campus interested in coming because they just had too many things to do.

Doug Widner : Yes, thank you, Louisa.

Virginia Ostendorf : This is Gini. May I add a comment? I think that works in the reverse as well. I'm thinking, and I don't know if Janet Bowers is on the line, or Greg from the National Rural Electric Cooperative Association . . .

Doug Widner : Not that we know of yet.

Virginia Ostendorf : Okay. They have a largely rural constituancy with a 200-site C-Band downlink network and they have to be very cautious when purchasing off-the-shelf programming because many of the programs that are designed for corporate training are filled with all the little buzz words that go for corporations that work in an urban setting where people have sort of sub-structures within their corporations that are common, and it really doesn't address people in the rural communities who are also in business, who also have a customer base, but have a different approach. You know, that's a two-edged sword, I think.

Doug Widner : Yes. Thanks for that comment, Gini. But there is some kind of programming though, theoretically, at least, that will go everywhere, or ought to go everywhere because there are people that need that training everywhere. I'm hoping Joan Milczarski from AMA is with us. Are you, Joan?

Joan Milczarski : Yes, I am.

Doug Widner : Do you have anything that you can share with us about urban versus suburban marketing?

Joan Milczarski : I would certainly agree that what I've heard from people who are marketing the programs directly to registrants, that there certainly is a problem attracting students in urban areas and you can even see that if you look at people who are marketing the programs and see the sites that they have scheduled. Frequently, they're not always running in the middle of New York City.

That kind of reinforces the gut feeling that I had about what the situation would be. I think another split though that you have to look at if you want to look and divide things roughly into four constituancies—there are the corporations, the colleges (and the students that they are attracting), the hospitals, and the government.

Those four constituancies also have different needs and different perceptions of what programming should be all about. Not that they don't share a lot in common and not that you can't satisfy a lot of their needs in a videoconference the way you can in a public seminar. But they don't always feel that they are being sufficiently addressed.

If sometimes, you're talking about getting more of certain types of examples in the program, that might be one way to deal with it. But in other cases, they have different views even of management training. They feel that it has to be much more specific to their needs.

Doug Widner : It gives you good appreciation for directors and traditional

mass media and the remote producers, and the people who have to stand out on the floor and see that things like that don't happen. Mass media . . . maybe we could benefit a little by having those people work in our-less-than-mass media productions. But anyway, I wanted to move on now to technology, stories about technology, which yours was a good segue into, Gini, and I'll start this one out by saying that there are some times, when no matter what you do, you can't prevent a technological failure.

About eight years ago, PSSC was operating a service called the National Satellite Network and we did a lot of videoconferencing, and one of our clients was the Justice Department through a contractor. We had accepted a contract to arrange a multi-day videoconference originating out of Washington, D.C. to train police departments throughout the southern states, and in order to accommodate the production requirements with the Justice Department, we had to temporarily set up transmission facilities in a studio that didn't normally have them. That meant hiring the phone company, AT&T, to come and put up a microwave interconnect between this particular studio and the nearest uplink.

On the day of air we had 30-knot winds, which is a bit unusual in the Washington, D.C. area. Just enough to blow over all of the microwave links we had established with sandbags between the production studio and the satellite uplink. The unfortunate thing about it all was that the gentleman from the Justice Department who was paying the bill for this two-day videoconference was at one of the receive sites in Florida and he had no way of knowing what the problem was. All he knew was that his videoconference was not happening. Of course, after about an hour with no signal, he called up and said "Forget it," and there wasn't anything we could do about it. It was a technological failure that you cannot predict and cannot fight against. Even had we been able to have redundancy, two microwave paths, I don't think we could have beaten the weather on that particular day.

The one good thing that came out of that bad experience, is that, now I think people will challenge me on this, that the year was 1980, I think we started the insurance industry for special event because our comptroller at PSSC at the time said, "By golly, isn't there someway we could insure ourselves against loss of revenue in situations like this?" and we called all the insurance people we knew of and three of them came back to us and said this is really strange, but if you've got the money, I'm sure there's a way we could cover it. About a year later, three of them started to show up in the trade magazines as offering "event risk" insurance and so our failure perhaps was the industry's gain. But I won't be presumptuous enough to insist upon that fact.

Anyway, we haven't asked, yet, those that have called in and haven't volunteered stories, if they have questions. Let's take a minute and let anyone break in that wants to at this point. Is Howard Mevis from AHA still with us?

Virginia Ostendorf: Doug, might you ask who is out there?

Doug Widner: Well, I could do that, Gini, but let me do it this way instead. I

have a list in front of me. How about . . . well we know Joan Milczarski is with us. How about Eldred Hendricks from the University of Virginia?

Mickey Hendricks : Yes, this is Mickey Hendricks from University of Virginia. I was talking to someone else when you requested.

Doug Widner : Fine. Thanks for speaking up.

Virginia Ostendorf : Doug, did you hear? That was Howard Mevis on the line. We can barely hear him, Doug. I think he's having some transmission problems.

Doug Widner : No. We didn't pick him up here.

Virginia Ostendorf : Maybe the bridge operator could work with him?

Doug Widner : Hello Howard, wherever you are. How about Myra Traynor from NUTN?

Myra Traynor : Yes, I'm here, Doug.

Doug Widner : Hello, Myra. How are you?

Myra Traynor : Fine.

Doug Widner : Good. Any stories to share with us today?

Myra Traynor : Oh gosh . . . I have so many stories, I don't know where to start.

Doug Widner : Yes, I bet you do.

Myra Traynor : Someday, I'll have to share some of them with you.

Doug Widner : Well, we've got a few more prepared to go through here, but don't hesitate to jump in. We have Leonard Press from Kentucky Educational Television with us. Hello, Leonard. How are you?

Leonard Press : Fine, thank you.

Doug Widner : Thanks for joining us. Let's move on before we run out of time and move into technology. I've given you my sad story of a failure. Virginia, you had a good story about dial-out versus meet-me.

Virginia Ostendorf : Right. We had a client, this was in my audiobridging days, and we had a large government client who wanted to do a major event by audioconference. The program was only scheduled to run, I believe, 90 minutes and a maximum of two hours, so the time factor was very limiting. We urged the client to let people call in, and certainly consultants or people in the service business know, all you can do is suggest based on your experience, but it's the client who pays the bill that decides. The client decided no, they didn't want the interconnection. They didn't want people to dial in themselves because they wanted to pay the long distance. We couldn't convince them of any other alternative. They wanted us to call them.

So several days before the program, they sent the telephone numbers and contact names and sites for all of these 85-plus locations. We put on extra bridge operators and I believe we had

about five or six operators placing the calls. This was in the days before the blast dialing was readily available, so we're talking about people manually dialing these up. Well, unfortunately, the guy either suffered from a poor secretary and clerical pool or something. About one third of the telephone numbers were wrong. We would call and we were getting these bizarre places that never heard of us. Then we were getting calls from people who were waiting for us to call them while we didn't have the right phone numbers and pandemonium reigned. It was just horrible.

We finally interconnected the call about 25 minutes after the program was supposed to have begun and, fortunately, the client did have a representative at our location during the program who saw what was going on and the problems and reported back to them, "Hey, we should have listened to them. They knew what they were talking about." So, I think sometimes, we push the technology to do more than it should do. Back to you, Doug.

Doug Widner : Thanks, Virginia. That's a good story. Here, with our bridge, all the time, we get requests for conference calls where people think it's a nice gesture to have us dial out and I wish that all of them had asked us to do that could have heard the story that you just told.

Anyway, Henry, you complained in the pre-briefing conference call we had about all of the technical problems you've lived with in one-shot events.

Henry Ingle : Yes. I think that's a very important thing. There are still people around the country who have never been a part of an audio-or videoconference. There's always the glamor of that one-shot thing, of that first time event, where they all get excited about it. I think that so much is left at risk when you're doing conferences on a one-shot basis. If the experience is good, well fine, you'll probably get those people back. If it's bad,"I told you so," and it gets reinforced and reinforced and they spread it around that it didn't work, the technology failed.

I try now to get people who are interested in finding out about teleconferencing or in doing it, to maybe attend some other sessions, places that have done it for awhile, so they can go in and maybe listen to a couple of them or sit in on some. Then you get them doing teleconferencing, but the one-shot event, I think, is a difficult one.

I think back to one series that was very, very good for us. We, about four years ago, carried the Smithsonian live from Washington on the West coast. They were doing a series of audio seminars right there in the Smithsonian Associates part of the museum on new information technology and we were able to get eight of the California campuses hooked on (these were graduate students in the field of communications) to follow the series.

The first one, there were eight of these, and it was normally 6 p.m. on the East coast in Washington D.C. and there was an assembled group there, and 9 p.m. on the West coast. There's a three-hour difference. Graduate students followed these as part of their instruction. They received credit for them. But the first couple, we really had all sorts of difficulties, both from the Smithsonian side, the time and the

interconnections, they were coming on later than we expected and then also the quality. It finally worked out during the rest of semester. I think we got a lot of students that were turned on to conferencing because they saw it in all its glory—good, as well as the bad and the ugly.

Doug Widner : Thanks, Henry. Good stories.

Lou Bransford : May I comment about that one?

Doug Widner : Go ahead.

Lou Bransford : About part of that Smithsonian experience. Henry, the reason you had problems, if I can remind you, is that you guys were boot-legging the program.

Henry Ingle : Well, the other campuses were.

Lou Bransford : Let me finish. You only paid for one registration. You picked it up and then you were redistributing it on your Darome bridge and the Darome bridge was not compatible with the ConferTech Bridge we were using to transmit the program from the Smithsonian.

Henry Ingle : I concur with you, Lou. It was tried on an experimental basis on the Chico campus through which we paid our membership. The other campus sites, I will agree with you. There was a bootleg attempt and that was part of the difficulties, but there was also a series of problems where the people on the Smithsonian side did not show up and printed materials that should have been sent ahead of time were not sent. It arrived two days after the audio-conference. A whole series of events.

Lou Bransford : Henry, if I may comment again? That was not a technology problem. That one didn't show up. I think we have a tendency sometimes to blame the technology.

Henry Ingle : Well, I wasn't blaming the technology on that sense. It's really the whole process. I think when you're looking at conferencing, you shouldn't just look at the convener equipment or the group getting together, but you look at the print packet. You look at your research people. Are they going to be there? You look at maybe some video or some other support visual material that goes with it that you've sent ahead of time. There's a whole configuration, Lou.

Lou Bransford : That's true, Henry.

Doug Widner : I'm going to have to jump in and arbitrate here, I think. Henry, Lou, thank you for that rousing dialogue. You've illustrated that there are other problems beyond technology that we need to think about as we plan these educational distance learning events. Let me move on, because we're running out of time, to international stories. International has got to be, without a doubt, the ripest area of all stories. We've got a great one coming up from Louisa.

Louisa Nielsen : Hi, Doug. Yes. When I was at GW, again, we were working with Intelsat in the Project

SHARE, which was Satellites for Health And Rural Education Project, and we had an outside client—the American Society for Microbiology. We prepared the proposal to work with several African countries and it was one-way video, two-way audio. We worked through Intelsat and Intelsat worked through the United States missions to seven different African countries.

We contacted all the people by mail first and gave them the appropriate telephone number to call in preparation for the videoconference. We did not hear from two countries, but we were able to contact one of them by phone and say, "It's a little bit late, but we're preparing, and are you ready?", and they said, "yes." The very last country, which shall remain nameless at the moment, never responded to us. We sent them another letter and it seemed as though they did receive it. It was sent in Diplomatic Mail Pouch and we were told it was handed to the people who were going to be participating.

In their studios in, actually it was Niger, they were prepared to participate. They had all the cameras hot, as we understand, and all of a sudden the coup took place and we lost them. We never had them actually, but we didn't have them on telephone line and we also did not have them on video at all. We could not see them. Apparently, they also lost our connection. This was a preparation that took about five months and it was a conference on Infant Rehydration Therapy. The interesting element to this was that we thought that we were all prepared. We thought that all the countries were plugged in and at the very last moment the director was really pulling her hair out because she thought that we lost Niger and, indeed, the entire country had lost its communications system.

We tried to call during the videoconference, which was a rather long one, it was three hours long. It was taking place from two in the morning Eastern Standard Time until five in the morning because that was when the Intelsat satellites were not being used for anything else, so Project SHARE was using them. We did get in touch with the country from George Washington University's telephone system and we got a recording from the country saying the country was closed.

So, after things were going rather smoothly and the crew was not needed, occasionally they would call this number because they really couldn't believe that there was a recording saying that the country was closed. Apparently the country had experienced this problem before in terms of an administration changing hands, one way or the other, and had put together an English-speaking message on an answering machine which told people that the country was closed.

We did get an apology afterwards. We said that we really felt very bad for them because they were very prepared and not only was the teleconference blown away, but obviously the country was having some very grand problems. So that was one of the international problems we found that we tried to scurry about and there was nothing we could have done.

Doug Widner : And a great story, too, Louisa. It illustrates the fact that when we plan these international events, I know I've had an opportunity to

be a part of some international event planning, you tend to believe that the whole world is going to revolve around what you're doing.

Louisa Nielsen : Yes. That's correct. And, actually, often that is right, but in other cases, it's not right. And the other thing that it does, of course, is to show one that the world is a very big place and it's very complex. Even though we haven't read about something in the newspaper or heard something on the radio, major changes in government are going on all around the world. As much as we think we're plugged in, we're not.

Doug Widner : Yes, but looking at the "Is the glass half empty or is the glass half full?" kind of syndrome, you've got to point out that it was unique and probably a telecommunications marvel that you were able to call up that country and get a recording saying that the country was closed.

Louisa Nielsen : Yes. That's one for the books.

Doug Widner : That is one for the books. Thanks for sharing that with us.

Louisa Nielsen : Certainly.

Doug Widner : Lou, you have an interesting story about international bureaucracy to share with us.

Lou Bransford : Well, I think that reinforces what Louisa just said. You don't always need a coup to disrupt a conference. It can be something as mundane as the local PTT that just doesn't want to cooperate. I believe that most everybody would agree that arranging the satellite teleconferences, not just international satellite teleconferences (not too difficult, for the satellite part of it), it's that local loop that will get you, and working out the arrangements with the local telecommunications authorities and the state telecommunications authorities in a foreign country. It's not easy. The system does not work as well as it does here in the United States and the bureaucracy, and the problems associated with the bureaucracy, that we have encountered in past teleconferences would bear this out.

There was a recent one we did in South America that up to the last minute, we weren't sure if that program was going to go on because no one had authorized a technician to pull the switch. Some one had to make an outside call and some one had to, in fact, mandate that this person go ahead and do it, or he would not have done it.

The one story that I think you were referring to, Doug, was the one in Scotland. The program was in Scotland and we were going to teleconference the proceedings from the conference back to the United States and to Canada. We worked out the arrangements. It would have been more expensive for us to bring in equipment and originate from Scotland. What we ultimately ended up doing was fly the presenters from Scotland to Paris and did the teleconference from Paris and flew them back and saved a lot of bucks. And that doesn't make the problems in Paris, or in France, any easier because we still had a set of problems to deal with.

Doug Widner : Now, what year was that?

Lou Bransford : That was in 1979. Ultimately, this was one of the first major international satellite teleconferences for distance learning. It used six different satellites and went to Europe, Canada, and the United States.

Doug Widner : And used experimental satellites.

Lou Bransford : We went up in Europe with Symphonie—it was a French/German satellite. We came down in Canada, went back up on Anik, and came down at Rosman, NC, went back up on ATS-6, Westar and RCA, also picked it up and distributed it to a number of public television stations and other places that, at that time, had an earth station. The problems were not technical. It was one of working out the difficulties with the telecommunications authorities.

Doug Widner : You make me want to point out another fact, and that is that people get a lot of attention these days for doing the big, all-global media events, like the US concerts and the benefit telethons for this, that, and the other that tie up entire satellite systems. In many cases, we educators did that years ago. We may not have done it to scale, but given what we had at the time, we were causing just as big a miracle in many cases. I remember the first international trade dialogue that I was involved in had 181 different video and audio switch points. I remember that because I was responsible for them and I was convinced, 15 minutes prior to going on air, that every one of those switches was manned by someone who failed their GED. But it happened. It came off and it was very good.

Virginia Ostendorf : This is Gini. I can't resist throwing in another story. When I was in the state of Iowa running a large network (it was a 141-site audio network), and frequently we did have all 141 sites up. We had one site that was just perpetually a problem. Couldn't get it to work. It was Spencer, Iowa. We had every senior engineer from Northwestern Bell, we had vice presidents of Northwestern, we were raising so much Cain with them to fix the darn thing because every time we'd get on a teleconference, their location would not receive it or it was staticy. I mean it was just always a problem.

After weeks of frustration and the commissioner threatening to pull the whole system out if they didn't fix it, my bridge operator who, in those days, probably earned all of $4 an hour and was basically a clerical level employee in the organization, solved it. She solved what all of those technicians could not figure out. One day she said to them, "Spencer, go in and unplug your soft drink machine," and they did, and their transmission was perfect. What happened was that she remembered that one day they had a good conference and that one of the gals was complaining that their soft drink machine, all the pop was warm because it was unplugged while they were repairing it. It had a faulty ground and that's what it was. It was a faulty electrical machine and it was throwing the whole jillion dollar system off. So I thought that was really an example of the opposite—the experts aren't always the experts. Sometimes

people who use it are the ones who can pull you through because she did something that they couldn't do.

Doug Widner : Great story, Gini. But we're perhaps lucky that we don't have 200 lines on today's conference, or else we may have 200,000 video conference participants tomorrow complaining about warm soda. But anyway, we have one more international story that I want to get to before we wrap up today, and that's back to Louisa. Louisa, we called this the "Welcome Interloper" story.

Louisa Nielsen : Yes. This was also during the Project SHARE experiment. It was also during the American Society for Microbiology, this Infant Rehydration Therapy project. We had a program in which George Washington University physicians were giving information to African physicians. This was really sort of a one-way information flow and the questions were coming out of Africa. They were very informed questions.

After we finished the program, and this was not the Niger program, the next morning during regular working hours we received a phone call from a pediatrician in California and he said that he was playing with his home satellite dish in his back yard during the evening hours and found our program and he decided to watch it. He found that there was information that he didn't know as an American physician being shared with African physicians, and there were even things that the African physicians were asking that were even better questions than he could think of. So he asked us if he could buy a video tape of the program. This was one level of audience that we hadn't anticipated, but it certainly was a welcomed one.

Doug Widner : That's a great story, too, and I've worked with a number of clients over the years that have similar stories of people that have accidently or on purpose, who knows, interloped into their video conferences, end up being welcome interlopers. One's got to comment that with our move toward scrambling and selectively addressable pay-per-view type opperations, that we are not going to benefit from that kind of thing for a lot longer. Which makes stories like yours, Louisa, and my memories all the more cherishable.

Louisa Nielsen : That's correct.

Doug Widner : The final topic that I had listed for today's audio briefing, I've retitled, "Mixed Media" because I have noted just one story really, and, Virginia, it's your story. It's really two stories and I'd like you to share them with us and that's what Travelers Insurance has done to mixed media.

Virginia Ostendorf : Thank you. You had asked us all, as panelists, to think about what we think the future holds and what are some trends that are coming. I really believe that we are going to start seeing a change from a devotion to one modality, as we have such tunnel vision so often about one particular mode, usually the one we know best, and we don't necessarily bother to learn about the other way to communicate. We're starting to see some success stories and I'd like to share a couple. One that I'm very pleased to hear about is from Jake Landry at

Travelers. He signed up for a national video teleconference on service and he registered a number of people at Travelers to attend at a downlink site. But he wanted to go further than that. He said, we don't just want to pay two hours or three hours of lip service to this issue, it's important to us.

What he did is, on his own, got a magazine article written by the key presenter on this national video event and duplicated it with permission and circulated it to the people who would be attending the session for pre-reading. This was designed to get them thinking about service issues ahead of time and to stimulate some discussion ideas and questions. He went one step further and did, what I would like to call, for lack of a better term, an "audio wrap-around." He recontacted the key presenter and arranged for him to be available for an audio teleconference with the Travelers location in a pre-show audio-conference and a post-show audioconference.

So ahead of the video program they were able to review the article that had been discussed, to kick it around with the presenter a bit. Then they attended the live one-way video, two-way audio videoconference. About a week later, they had a wrap-up audioconference with the same presenter after people had had a chance to chew on it a bit and think about it. I really believe that that's a wonderful use. He could never have justified uplinking those two little sessions with his people. The cost would have been outrageous, but audio was the perfect mode. They already had the equipment in place. The presenter was happy to spend some time on the telephone with them. I think we're going to start seeing more and more mixed media for these various events. I think that's a wonderful item.

Another one that I had was when you also asked us to think of things we have not done yet but that we would like to. We had a client that's a Fortune 300 company that planned a major product introduction last year and they had a number of international sites that they wanted to benefit from the program. Unfortunately, they could not cost-justify satellite delivery to those cities for two reasons; one, the number of personnel, while they were significant, was not enough to justify the cost per person it would take, and, second, the time zones were totally bizarre and they couldn't figure out when they would do it so that these people could attend at a reasonable hour in their working day.

So what they did was a Plan B. Unfortunately, Plan B never got to see the light of day because the Vice President of International decided instead to fly all of his people to New York to attend the event in person, which was his option and his budget. But had he not done that, what they were going to do was to make a very quick edit of the videoconference overnight, edit and dub a couple hundred copies of the event . . . a narrowed-down version of it. I believe from a six-hour event, they were going to try to consolidate it into about a two-hour video tape. They were going to send it courier, I believe Federal Express, out to the international locations and the next day, the second day, after the live event, have an on-line audioconference with video tape with the same presenters that had been on the videoconference.

I think that's a wonderful idea and it would have been wonderful for them because they would have been able to see the product demonstrations, they would have been able to hear the prepared formal presentations, but they also would have been able to kick around questions with the people who had actually delivered the information, as well as taking the tactic in the question period which would have emphasized the international, which is really what they were interested in, not so much the domestic market for the new product. So I believe that I'd really like to see somebody do that one. I think, at some point, it will really work.

Doug Widner : I think you're right, Gini. I think somebody will do it. As a matter of fact, Joan, AMA, are you still with us?

Joan Milczarski : Yes.

Doug Widner : Are you still thinking about doing that audio extension for AMA by Satellite?

Joan Milczarski : Yes. We are thinking about doing it. We had a program that we ran for secretaries last April where we had over 700 sites and over 17,000 people. We had 40 minutes of Q & A during the program, but the comments that we got afterward were that we had people calling but they couldn't get through and we had people at sites where they didn't get a question on. When you have that many people and that many sites, I think it's awfully hard to satisfy them during the videoconference portion of the program.

So, we were kicking around various ways to have an audio session after the video portion of the program. One way we were talking about doing it, the more complex way, would have been using a number of different audiobridges so that people could call in and get on a conference call with a particular speaker and ask that speaker a question and then drop out of that call if they wanted to and call another speaker. This is the way that we thought we could do it where it would be the most interactive. I don't know what we are going to wind up doing, but we definitely want to make that test with an audio follow-on.

Virginia Ostendorf : This is Gini again. I know that since Joan is a subscriber to our newsletter that she's seen the article, but for those who are not, Triton College did an innovative thing this year by adding a bridging service to the Q & A portion of their program on drug abuse and when they took questions, people who dialed in had three options. Either they go on the air live, or they got answered by a person who was one of the knowledge experts on the phone (on the bridge directly) or they were routed to a resource person. I think they had about seven or eight people on line as resource persons.

So, as a result, they were able to answer about four or five times the number of questions they normally would have for a 90-minute teleconference. I really think you're right. What good does it do for people to call and get a busy signal or be frustrated and not get their question in. When you're talking about large events like that, the only answer is audio. I

think you're really on the right track, Joan.

Joan Milczarski : That's good to hear.

Henry Ingle : This is Henry in California. The proposal that you have in mind is very feasible. We tried it with Project Best when we were funded by the Department of Ed and were working with 45 different state sites. What we did was that we would break up the videoconference and provide 30-minute audio links in the videoconference, grouping the states by their budget size and some of the problems they were facing. So they would be talking to each other plus one of the panelists would join on those bridges. There were never more than eight sites on any one audio conference and it worked beautifully.

As you added more sites, obviously, the discussion deteriorated because there was not enough time to delve in depth into issues. But we found that it was the strongest complement and then at the end of the audiobridge, we would go back to the videoconference and allow site representatives to sort of summarize what they had learned from their audio bridge. It was very, very well received, well evaluated, and technically, it went off without a flaw.

Doug Widner : Thank you, Henry. And thank you, Joan, for sharing that with us. We're about out of time. I want to open up one last time for questions from anybody out there who hasn't had a chance to say anything. I'll give you about ten seconds to speak up. You know, dead air time is one of the worst things anybody involved in any kind of media event has to face. We still are learning how to handle it.

Henry Ingle : Well, Doug, let me add one thing. This is Henry, again. I know when we had spoken earlier, I think one of the things we need also to emphasize is conferencing gains and strengthens in popularity is active listening. I know that that occurs through our graduate students, when we are training them in the uses of various technologies. That would be something we could use across the audioconferencing business. I'm putting together materials on what we mean by active listening, when someone is interconnected and exchanging information.

Doug Widner : Thank you, Henry, for pointing that out. You did have a good story on active listening that we didn't get to and I apologize for that. But anyway, we are just about out of time. We may even get off the air, or off the phone lines, a minute or two early today. But I want to take this opportunity to thank those people who did come today with stories. Lou Bransford from PSSC, Louisa Nielson, Virginia Ostendorf, and Henry Ingle. On behalf of the staff at the Public Service Satellite Consortium, and our Year of Distance Learning, I'm Doug Widner. We'll talk to you in a couple of months. Bye all!

"International Trends in Distance Learning"

A PSSC Member Audiobriefing

September 13, 1988

Laura Randall : As most of you know, this is our fifth audio briefing in PSSC's Year of Distance Learning. In earlier discussions this year we've touched on the topics of the costs and benefits of distance learning, training students and teachers to work with distance education, and innovations in distance learning.

In today's conference we're going to venture beyond our geographic borders and discuss international trends in distance learning. This session will generally follow the same format of other member audiobriefings. After I introduce the discussion leaders, and they describe their experiences with international distance learning, I'll pose a series of questions to them. Please feel free to participate in our discussion with your thoughts and comments. I ask, however, that you hold your comments and questions until I open the floor for discussion.

Some of the specific questions we'll cover in today's conversation on trends in distance learning will include: what innovative, unique and successful distance learning programs, techniques and technology our discussion leaders have observed outside the U.S.; what they feel are the latest trends in international distance learning; what are some suggestions they may have regarding the adoption or adaptation in the U.S. of some product or service used abroad; what issues should be considered when adopting an international distance learning technique; and what speakers' thoughts are regarding the next generation of distance learning. Do they believe we are getting any closer to establishing a global distance learning model?

Without any further ado, let me formally begin today's discussions by introducing our illustrious panel. We are honored to have with us three PSSC members and experts in the field of international distance education. In a moment I'll ask them to describe in greater detail their experiences. Now let me present them to you, Don Ely of the ERIC Clearinghouse for Information Resources, Syracuse University; Dr. Ralph Meuter of California State University-Chico, where he is the Dean of Regional and Continuing Education; and Dr. Susan Tucker, on leave from George Mason University and working on an interesting project with the U.S./Japan Foundation as a consultant. Thank you for calling in today.

Ralph, why don't we begin with you? You recently attended the international distance learning conference held in Oslo. What exciting news can you share with us today from there?

Ralph Meuter: Thanks, Laura. I am pleased and privileged to be on this panel, and yes, you're right, I had the opportunity just a month or six weeks ago to attend the world conference of the International Council on Distance Education in Oslo, and I learned a lot of things there, which I'll share a little later.

I'd like to explain my perspective a little. I'm sure that most people are aware that California State University-Chico has had four years of very successful experience in delivering a master's degree in computer science to corporate clients. Some of those clients, have some offshore international needs and plants located throughout the world, and have raised, and we have investigated, such things as delivering credit-bearing degree-oriented programs via satellite, live and interactively. That's where my perspective comes from.

Laura Randall: Thank you, Ralph. Susan? Why don't you tell us about your trip to Japan? What happened there, and anything else that you've been involved with recently?

Susan Tucker: I started out as an administrator in Alaska several years ago, in the late 70's and early 80's, and for the last year and a half I've been working with the British Open University, affiliated with the BBC in terms of delivering its service, and with a production unit that is run by John Radcliff. And I'll talk a little bit more about that in detail, later.

Laura Randall: And how about the Japan visit, Susan?

Susan Tucker: I really didn't spend much time with Japanese delivering distance education. The U.S.- Japan Foundation is exploring different ways of delivering instruction at the pre-collegiate level and they're just really at the study stage at this point.

Laura Randall: Okay, Susan. Have we got Don Ely on the line yet? . . . I think we've had some trouble reaching Don.

Ralph, why don't we take a shot at you answering our first formal question? What are some of the innovative or unique approaches to distance learning that you've observed abroad?

Ralph Meuter: Most of my responses to this question are related to a sense I received from international colleagues at the Oslo meeting. Three years ago I was at the same meeting in Melbourne and it was hard to find a person who wanted to talk about satellite use to deliver academic programs internationally.

In Oslo, a few weeks ago, there was a much greater knowledge, level of interest, not much exact experience in doing it, but a considerable interest by people from other nations about what we're doing in the U.S.—not only at my institution in Chico, but in the National Technological University and several other universities in the U.S. that are delivering credit programs.

So, I think one use of distance learning programs would be reflected in their heightened interest [in what we're doing]. The rest of the world seems to have a highly developed, what I call conventional correspondence-type of delivery of credit programs, and I think

that they're grappling with the issues of beginning to use technologies that we've had a little bit more experience with.

Laura Randall : Great. Thank you very much, Ralph. Susan, you mentioned in an earlier discussion that you've seen the British working with some effective techniques in terms of development, using the skills of both academics and technologists—you noted that that was sort of an interesting technique. Could you explain that to us a little?

Susan Tucker : Basically, there are two bodies that make up the Open University. There's the university itself, which was especially created in the early 70's. It's an academically autonomous national university in Great Britain and Northern Ireland and it's really targeted for working with adults—anyone over 21 or so—to pursue courses leading to a post-graduate degree or even to some kinds of short-term post-high school experiences and they're mostly made up of the typical academics in a university. But, then it is also cooperating (with) a second national body that operates with the Open University, the BBC.

The British Broadcasting Corporation is chartered totally differently, not under the Ministry of Education, they are working together with their engineers and all of the different media resources, together with the academics to develop courses. The luxury that we don't have (at least that I'm familiar with in the United States) is that they can take up to two and a half years with these production teams made up of academics and technicians to come up with a course that is piloted several times before it is ever released. That, to me, is pretty unique.

Laura Randall : That's obviously a fairly successful technique. Susan, do you think that that's been very successful over there?

Susan Tucker : No question about it. They have continued to evolve a variety of programs that are very, very well received. One of the challenges, I suppose, about why they have to be so cautious is that the BBC, because it is a national station, really, in terms of television, is that they have to be aware that the general public is watching this as well and the quality has to be very, very high.

Laura Randall : I understand that we now have Don Ely on the line, is that correct?

Don Ely : I finally got through.

Laura Randall : Let me thank you for dialing in and welcome to the conference. I'm going to ask you right away if you could please explain a little about your experiences in international distance learning for us.

Don Ely : Very briefly, I have been a consultant to the Open University in the United Kingdom working on course development planning with the Institute of Educational Technology. I helped to organize and plan the Open University in Indonesia. I've trained course teams in the Open University in the Netherlands and in TV College in Chicago in this country, I've worked with media selection and the design of course

materials. So my major interest is in helping people to develop credible, validated course materials. I've worked in the U.K., in Indonesia, the Netherlands and in this country.

Laura Randall : Have you seen the system that Susan was describing, in actually working order?

Don Ely : Oh, yes, I've worked with them now for over 10 years and she described it very well and succinctly. The interesting thing is, and I suppose that this is one of the trends, that many of the traditional colleges and universities are now buying and using the materials that were developed for the Open University because they're so good that they surpass anything that's currently available in the market. We're seeing the same thing happening in Indonesia with the materials that are so good that they're now being used by traditional universities.

Laura Randall : That's very interesting. You mentioned in particular, last time we spoke, Don, that the use of audiocassettes has been very effective in Indonesia because it's such a traditionally aural culture.

Don Ely : We discovered that the hard way. We started by printing a lot of materials for correspondence instruction and then realized that we were dealing with an aural culture for past several hundred years. And so we transferred some of the written materials to audiocassettes because they're inexpensive, reusable, and widely available in that country. And we now have a stronger aural component than written component in Indonesia.

Laura Randall : Have you seen that strategy adopted by the traditional universities as well?

Don Ely : No, the traditional universities tend to use the printed materials but not the cassette materials.

Laura Randall : That's very interesting. I'll open the floor for discussion now. If any of you out there have ever seen any particular techniques that you have found effective abroad . . .

Is there anyone out there who would like to tackle that one?

Lou Bransford : This is Lou Bransford and I have a question for Don Ely. Don, you mentioned that several countries are buying or leasing programs from the Open University. How do you respond to the question of cultural relevance?

Don Ely : Well, that is a major problem, and what we're discovering, Lou, is that courses that are being acquired for use in developing nations and other cultures are those that are in more structured fields. For example, mathematics, science and language, basic psychology, basic economics, where the cultural differences are not as pronounced as they might be in some of the social sciences and humanities fields. So that's one way to get around it.

The other thing, of course, is that so many of these materials are translated, they provide a local introduction to the material in which they indicate that some allowances have to be made for the

cultural differences. In other words, they warn the viewers about the differences that they will see. They recognize them, but they can't go to the expense of reshooting a entire program in order to use it in another culture.

Lou Bransford : Thank you, Don.

Laura Randall : Susan, why don't I move on to you. Let's get into the theme of today's conference. What do you see as the latest trends in international learning?

Susan Tucker : Well, I think that one of the biggest trends is the move toward multi-media types of approaches to the delivery of distance education, particularly in the more developed countries where it's very fortunate that a lot of the viewing public has access to television and different audio equipment. An incredibly developing resource now is videocassettes and they, in fact, have really gained in importance in the Open University in the U.K.

It's also something that the Japanese are using extensively. In fact, I believe that they own more VCR's per capita than anyone else in the world. And that's what the Japanese Ministry of Ed is looking at in terms of delivering more distance education for continuing ed purposes—more for the general public. It's a far more structured society and higher ed there doesn't really franchise out distance education. It would be very hard to create something like the Open University at this point in Japan. They have something called University of the Air, but it hasn't really taken off in the same way.

Laura Randall : That's interesting. Thank you, Susan. Ralph, I'm going to move on to you, if I may. You mentioned earlier that the increase in satellite technology was one trend that you had seen develop worldwide. Do you think that with an increase in private sector support, this technology of satellite communications will expand in international distance learning?

Ralph Meuter : Yes, I absolutely do. I agree with what Susan had to say about the trend toward multi-media. The alternative uses of the technology are very, very important. And then your point, Laura, regarding the leadership of private sector, in the U.S. especially, the rapid development of private satellite networks within the private sector, I think, sets a pace for universities and other educational providers to realize that these things are possible. We can get beyond the questions where we used to be three, four or five years ago of can these people use these techniques, etcetera?

There are positive examples on the landscape that would help people. We are talking about a human interaction education in the broadest sense, the interaction of human beings to share knowledge and expand one's knowledge and it's interesting to me to realize how, even with all these technologies available to us, we still must return to fundamental issues of what it is that needs to be learned, who wants it, how can we prepare it in an understandable way, and all of those fundamental questions that have vexed educators for lo, these many years before the technology.

I think satellite and other technologies just give us a broader range of opportunities and alternatives for the delivery of educational services. The private sector can definitely provide us examples (that show) it does work and makes it easier for those of us in the public sector and other places to continue to develop and take advantage of the advances in these technologies.

Laura Randall: Ralph, beyond providing an example for the public sector, do you think that the private sector might, at some point, step in and fund these programs? Have you seen this happen abroad, perhaps?

Ralph Meuter: Well, let me see if I can answer that question with a little hesitancy. The private sector institutions are willing and able to fund things that they see as directly related to their goals and purposes. So if they have an educational need that would be solved by supporting these activities, they will be responsive. That's been demonstrated in the U.S. I think that the conclusion is that if they identify similar educational needs in their offshore plant locations, they will certainly support and fund activities to satisfy them.

Now, the much larger question that you hinted at, I assume, (is) would they sponsor activities beyond companies' direct needs? That, I believe is a question still unanswered. There is, without a doubt, a clear corporate consciousness among many large U.S.-based companies with multi-national connections. But it's a major step to say, for the good of humanity, we ought to support a kind of a British Open University model or some other model—they generally take the stance that that's more in the realm of the individual government and others responsible in the public sector.

I'd be interested to get some response to that idea from others who might be on here.

Laura Randall: Does anyone have any comment on that?

Susan Tucker: I have one just to respond to, what Ralph was saying, I guess, even his mentioning of the Open University in the U.K. They're struggling with this whole issue of funding, as you can imagine, and they've evolved just in the past year or so the Open College, which is a spinoff to really deal with vocational training. They're trying to make that available to a much broader section of the population, not just the academic degrees and the Open University.

What they've done is, since about the summer of 1986 or so, the BBC and all these independent organizations, as well as some government ministries and the Open University, have all collaborated to start developing courses just in vocational ed and the funding sources for it include the private sector—that's what's driving course development.

Laura Randall: That's an interesting example. Don, are you with us?

Don Ely: Yes, I am and I've been trying to figure out how to respond to this because my observation in the developing nations of the world is that instead of bringing in satellite technology for the non-education sector

and the business and industry sector, that videocassettes and interactive videodiscs are being used more for training and dissemination purposes because sometimes the numbers are so small, satellite transmission cannot be justified. So, we find materials that are developed and then circulated via videocassette and interactive video in some cases.

Laura Randall : Don, one thing that you mentioned to us earlier, was the cross-cultural transfer of technology when the distance learning programs are obtained. Do you think that that's a problem because satellite technology isn't available and they're asked to use or forced to use these different techniques? Is the cultural translation difficult?

Don Ely : It's always difficult when you develop things in one culture for use in another. The most frequent line of transmission is from a more developed to less developed country and they're very sensitive about that. But I have seen that through such techniques as using local narrators, sometimes adding a visual introduction that has been made locally, or a supplement, that these have been custom-made or retro-fitted, if you will, for local use. But those cultural sensitivities are very important and they have to be recognized, and if you can't pay attention to them in the actual creation of the material itself, then you have to work to counteract any negative feelings that the technology is being transferred without consideration for the local context.

Laura Randall : Thank you. How about anyone out there who dialed in? Have any of you see any specific trends developing in the field of distance education abroad?

Janet Whitaker (Maricopa County Community College) : Laura, this is Janet Whitaker in Phoenix, Arizona.

Laura Randall : Hi, Janet.

Janet Whitaker : I would like to say "hi" to Ralph, we got acquainted at the Oslo conference. One of the issues that I heard continually there was reactions of Third World countries—that we, as developing nations, were so far ahead, they were running as fast as they could and didn't think that they were ever going to catch up. And I wonder if Ralph had that same sense, and Don, I know you've had a lot experience with Third World countries. Is that a common thing, or is it an idiosyncratic example that I ran across at the conference?

Ralph Meuter : This is Ralph, hi. Yes, I felt that same issue, perception, and I was uncomfortable with it because on the one hand I felt that it was a convenient cop-out to not continue on. When I look back five, six, eight years ago, that's the same feeling of frustration any of us here in the U.S. had. There are particular problems that, in other parts of the world, but I think that they are solvable.

Don Ely : Ralph, I agree with you, too, that this is a convenient cop-out for some people. The countries that I am familiar with, for example—Indonesia, Thailand, People's Republic of China

have embraced the current, more sophisticated technologies; maybe they're using them in not as polished ways as the British are using them or the Dutch, but nevertheless are using them and they are getting to people. A million students in the People's Republic of China are receiving their distance education by television.

It's working through repeater stations, through local transmissions, and some cable work, but I don't see them shying away. In fact, I see them wanting to embrace those technologies which are in fact appropriate for that culture, but not so far advanced that they're going to throw them. I think, for example, computer technology will be a lot slower to be used in distance education in developing countries than the television technology. So, I do agree with you.

Laura Randall : Janet, does that respond to your question?

Janet Whitaker : Sure does, and I have another point to bring out—a trend that I observed when I was living in Australia, and that was the idea of contracting by other nations for access to services. For example, to generate revenue for community college level instruction and vocational training in Australia, they contract educational services to Malaysia, to Hong Kong and Thailand. I was wondering if marketing of educational services to other countries is a trend that is happening internationally.

Susan Tucker : If I can jump in, Janet, just a second, I really think that that's a big agenda for a lot of "developed" countries like the U.K. Particularly, the Open University is very much heading in that direction because they're always under pressure from Margaret Thatcher to be more cost-effective. And they're always trying to find other sources to market their programming because it's so expensive to develop new programming.

Don Ely : This is Don Ely. I feel that, in my experience with the developing countries, they try to go as far as they can go with the resources they have. They realize the importance of using local resources, local talent. When they reach the point of not being able to handle it themselves, they will contract out for creating parts of their work. But, I think that's a last resort, it's not a first resort and it's only because of the pressure of offering additional courses that they can't possibly do in the time that they have, that they go out and find things elsewhere. I think that they would rather put out a crudely developed course that hasn't been field-tested than they would to go out and buy a polished course or contract for somebody else to come in and do it for them.

Lou Bransford : Hi, I'm standing in for Laura. This is Lou Bransford at PSSC. Last year in Costa Rica, I was presenting at a conference where there was a program fair, and representatives from different countries were bringing in their wares to share with others and there was, as a result of this, a lot of exchanging. They were able to select from programs that they thought were of some value in their respective countries. But, more than that, it created a sharing of information, encouraging some to even

develop more programs. We're not as much interested in the revenue from the sale of a course that has been developed, but encouraged by the responsiveness to sharing limited resources. I think that's something that we might be thinking about—some kind of program fair in distance learning where people would bring their products.

Susan Tucker : Can I jump on that, it's Susan again, do you see—Don and Ralph, the same question to you—more of the linkage between different, particularly developing, countries to share resources, because I can just think of a variety of AID projects that have in fact retrenched their funding in terms of satellite technology and some of the more sophisticated technology in the Third World because they haven't seen it as cost-effective.

Ralph Meuter : This is Ralph, I'm thinking on that one.

Lou Bransford : This is Lou, I'm thinking about it, too.

Susan Tucker : Well, Lou, you were talking about Peru, I worked in Jamaica and I can think of why those two projects were not successful, and also why they did something very, very successful while the funding was there, but when it stopped, there weren't enough internal funds to continue the programming.

Lou Bransford : Let me try and comment, and hope I understood your question. First of all, there were no outside funds for this program there. They were there participating in a conference and this is something done in conjunction with a conference. In fact, I was the only U.S. person there.

Secondly, keep in mind that they all spoke Spanish. There was a lot of common interest and support amongst groups because they were sharing not only travel, but limited resources, and that by itself, I think, is encouraging. I suspect if it had been funded by AID or by some international foundation that, at least from what I have seen, people would have been directing their attention to what can I get out of the foundation or can I get monies to buy new programs rather than be practical and say, "Look, this is what we have and we're willing to share it." There were really no ulterior motives from what I observed. I think sometimes we do a disservice to people in our efforts to give them something and they might accept something that might not be culturally relevant, but it's free.

Susan Tucker : That's a good point.

Don Ely : This is Don Ely. I want to pick up on what you said on language. I think language is key, here. I think you can see the cooperation if there is a common language country to country, but the kind of cooperation that I've seen among distance learning programs, for example between Thailand and Indonesia, was more on organization, management procedures than on course development and course materials. The course materials do become culturally-based, unless you find highly structured fields like mathematics, which can be translated wholesale. I think that you don't find the opportunities for sharing among uncommon language groups, but among Spanish-speaking, English-

speaking, Portuguese-speaking, whatever, I think there is potential for program-sharing.

Ralph Meuter: This is Ralph. Just on that general point, I think in addition to everything that's been said previously, I would point out that we're in a rapidly changing innovation curve, for lack of any better way to say it. Just think back a half dozen years ago to where we were in the United States, this is all changing so rapidly, so even when there are outside-funded projects, prices are coming down, and we can capitalize on sharing understanding, and how to use all these things.

The educators are just beginning to take advantage of these technologies. So the change is so rapid, we're on the edge, and we may not even be able to understand the impact. When innovation is taking place, if you're introducing too many variables, it becomes so complex that many times the entire project goes down because of complexity, not that it was not a good idea.

Kevin Arundel (U.S. Department of Education): Excuse me, Ralph, this is Kevin Arundel, Department of Education. Isn't one of the key ingredients in making an application successful a sound systematic approach of some kind that you maintain? I heard you talking earlier about who, what, when, where, why, and wouldn't it make more sense even in large, more complex applications to have a more sound, technical approach based on a systematic methodology?

Ralph Meuter: Absolutely. And it's important to have that figured out, but when things are changing so rapidly on the technical side, and I think they have been in the last decade, you're also learning how to use that changing technology, and at the same time, bringing humans in to do the educational things and getting accustomed to that, everything is in flux. My point is that now, at least somewhere in the world, there have been some significant successful experiences and the literature isn't developed yet, but the actual, practical operational experiences are there, so that now we can at least design comprehensive projects for long-term impact. But I think you're right on.

Kevin Arundel: And there really is a developing literature. I'm working with Don on the ERIC system and just in the period from 1981 to 1987, I noted that there were about 490 to 500 major descriptors or studies identified in the ERIC system on distance learning, distance education. So there is a developing literature in the field and Don can probably speak to that more accurately than I can.

Don Ely: I routinely go through at least four journals. There's the *American Journal on Distance Education*, there's *Distance Education*, which is published in Australia, there's now the *Canadian Journal of Distance Education* and also *Teaching at a Distance*, which is out of the U.K. Those are the four major English-language journals, but then you can go beyond that and go to the *Pakistan Journal of Distance Education*, and there's a Thai bulletin called *Never Too Far*, and there are bulletins coming out of many other institutions. The literature is growing

and I think it's becoming more respectable, not just case studies of how we did it here or there.

Susan Tucker : And, Don, don't you think that using the databases increasingly, the electronic form of compiling this information is also encouraging to people. I think that was one of the breakthroughs of ERIC; just because something wasn't accepted in a paper journal doesn't mean that it wasn't valuable and I can just think of the Council for Educational Technology in the U.K. that is very powerful and developing about four major databases in that regard.

Don Ely : You have all of them in ERIC.

Laura Randall : I hate to cut off this discussion, but I'm anxious to move on to the next question. I'm going to come back to you, Ralph, if that's alright. If you were to make a suggestion regarding the literal adoption or adaptation by the U.S. of some product or service that's currently used abroad, Ralph, what would that be?

Ralph Meuter : OK, I think I understand this question. If I'm off base, shut me down real quick. I'm interpreting it as, what needs to be done internationally to start sharing the use of technologies and educational services? Is that close?

Laura Randall : That sounds great to me.

Ralph Meuter : From my perspective, what needs to be done is the coming together of the various governmental entities that control the communication service in each of those countries. Because that seems to me, from some of our efforts here at Chico, would be the major stumbling block. The PTT in an individual country is concerned about receiving signals from abroad, both from the nationalistic view of being threetened by that, and then just the slow kind of glacial speed in accepting these technologies. Thus, one of the major adaptations or things that needs to be addressed is governments opening their views considerably to share with each other—easier said than done, I realize. But that's a challenge for all of us.

Laura Randall : Thank you, Ralph. Don, a little bit away from what Ralph was saying, perhaps let me explain the question more clearly. Do you think that there are any programs or services or techniques that you've seen abroad that could be adopted again literally or adapted for use in the U.S.?

Don Ely : I think I would always have to say adapted. I don't think there are any that I have seen or any I could recommend for gross adoption without any changes at all. Beyond the obvious language changes that have to be made, there are cultural sensitivities that have to be addressed, things like dress and context and products and non-verbal communication and gender. Those are important things.

So as I work with people who are trying to adapt materials, I try to include these sensitivities. Also use local visuals, and we find that drawings are better than photos, for example. We try to use local narrators, rather than people

who are imported. And we also attempt to try out the material. Some people call it formative evaluation, some people call it field-testing, but we learned an awful lot and saved a lot of needless expense in recall and in embarrassment if we try it out with a small group before we subject a large number of learners to it.

If there's one piece of advice I'd want to leave with anybody who's trying to move any material from one culture to another, it's to try it out with the new audience. And I would put a postscript on that by saying part of this process ought to be the training of tutors.

We find one of the very vulnerable areas that is not covered is the tutorial sessions that are held in the field away from the central office or central transmitter. And unless those tutors are trained to work with the material that the students are working with, they tend to be superfluous or just lecturers.

Laura Randall: Great, thank you, Don. Susan, can you think of anything that perhaps could be adapted for use in the U.S.?

Susan Tucker: Well, I'd like to reinforce the whole idea, again, of what Don was saying about the need for tutors and local adaptation, but also advocate a centralization of some services as well. There are a lot of things that are duplicated at the local level that could be consolidated. One example would be helping all these individual learners get access to the information about all the different courses that are available.

The British have a system called, EPTUS, which is a nationalized computerized service for information about courses. They also help with credit transfer, for adults particularly, to receive credit for experiences in different kinds of jobs and things like that. And then fitting in with the national accreditation of courses. All of that is a very, very tall order, and in the U.S., we don't have a nationalized curriculum per se, but we don't have voluntary accreditation agencies and I think those are something particularly under the aegis of COPA that could be addressed.

Laura Randall: Great. Again I open this up to our other callers.

David McIntosh: This David McIntosh at Colorado Video.

Laura Randall: Thanks, David, how are you doing?

David McIntosh: Very good. One of the things that I think that the United States could profit by is a stronger national commitment on the part of the federal government. Certainly that's not the direction we're heading in these days, but as a means to get a lot of distance education technology and a lot of course material out to large numbers of the population, a strong national commitment could be very helpful.

Kevin Arundel: David, this is Kevin Arundel. There is the beginning of a strong national commitment, I don't know how strong it'll be, but you may have heard about a new program announced at the Department of Education. Roughly $19-20 million is to be awarded in demonstration projects for applying technology in a distance learning setting and it's been announced, too, that there are about 69 applicants.

The awards have not been made as yet, but I would hope from those, whatever number of awards come from that, we will have some models from which to proceed.

Also, there is some word that there may be some national studies, maybe OTA will be taking a look at it. I think Congress is getting interested in it, and, indeed, the Department is at least beginning to get interested in it again.

As you may know, many years ago, we were involved in the old satellite projects that Lou here was involved in, to the tune of $25 million. Maybe there isn't a great deal left from those projects, but we do believe that it was a beginning and I think we have proceeded from there. We will be continuing to be doing that.

Laura Randall : Thank you.

Ralph Meuter : This is Ralph Meuter. Kevin, I think your point is well taken and just to continue on, I think David's also got a very good point. At the bidder's conference several months ago for that Star Schools funding that you were referring to, the room was overloaded, there were so many people there who wanted to do so many things. There's much more to do than $20 million can accomplish. It's a start, for sure, but there is a lot of interest throughout the nation and a lot of capabilities. I'm encouraged by your comments.

Kevin Arundel : Hopefully, the commitment will continue. I mean, it was projected for a year or two and I hope we will go beyond that, we'd all like to see that. What I am reminded of is many years ago, doing a study, looking at the Office of Education. They put in I think $140 million over a 10-year span that went into computer-assisted instruction and other types of computer applications. A number of us considered doing an evaluation study of those projects and we started with just a sample of approximately 100 projects to see what had happened. In barely any of those projects could we find people who knew anything about them. In short, the federal money turned off and the projects disappeared. I think that was something we discussed a little bit earlier. And I guess the key is to get the technology or the project integrated into the system so that it continues afterwards. I don't know if we have the answer to that yet. Certainly if we can keep the money coming and if we have a finely designed project that would be a good beginning. And regional resources, maybe local resources have to be garnered to keep it operating.

Don Ely : This is Don Ely. I think, Kevin, that's right, it's regional resources. I'm seeing among the states the kind of commitment that David is calling for nationally—in New York State, Minnesota and Wisconsin, to mention three that I know of. Distance education programs have moved into the secondary schools and in some cases, the elementary schools. A variety of programs using a variety of technologies seems to be emerging because of the support that the states are giving to it. So I think that beyond the national commitment, we have to look at state commitments, maybe both of them together as viable options for improving and expanding distance education.

Susan Tucker : As well as, I think, the linkages with industry, like the different Apple "Classroom of Tomorrow" kinds of projects that seem to be providing impetus in some areas.

Don Ely : I think that all of these things are very apropos to the topic of our discussion. What can happen within the United States or any other country if there are successful applications, it's easier to disseminate more successful applications to other parts of the world when they have in fact been shown to be successful. I'm not nearly as pessimistic as Kevin was on the computer thing. He and his colleagues may not have been able to find people who knew about computer-related projects that were funded federally; however, if he walks through any of the schools in the United States today, computer technology is there and 10 years ago, it wasn't. I'm optimistic enough to say that it might have been that stimulation of federal money even though the connection is not clear-cut.

Kevin Arundel : It would be nice to think so, thanks.

Susan Tucker : Well, I think that the OTA study, particularly, that's just been released is fairly hopeful and I think that you're right when you point out the difference between 10 years ago and today. I guess on the other side, to balance it, I am concerned when you look at some of the studies and the funding involved.

For example CPB—the Corporation for Public Broadcasting—has put into developing different types of courses for distance delivery and it hasn't always panned out. Part of it is related almost to the elitism of the institutions that are funded to develop the courses, like what Don was talking about, even in our own country.

For instance, MIT develops a science course, but then when some small institution, a four-year institution, is looking around for a particular package, they might shy away from something like that, thinking that it's beyond them.

David McIntosh : This is David McIntosh, from Colorado Video again. If I can try to pull some comments together that I've been hearing here, when you've got some regional groups, when you've got some private educational institutions working together, national governments can then recognize the potential that's there and subsequently link government-to-government, nation-to-nation. There is a program, some experiments that are being conducted by the Global Pacific Electronic University under Takeshi Utsumi out of New York City, that is trying to do just that around the Pacific rim, and it takes a certain amount of coalescing of the involved parties. Once that happens, there'll be a flash point and this concept of Global University will take off, that's how I see it.

Laura Randall : Great, thank you, David, I appreciate that. Don, if I can, I'm going to move back to you for our next question and this is sort of the flip side of the last question that I asked. What are some considerations that you feel need to be taken into account, and I know that we've also discussed cultural translation but beyond that, when a

particular country adopts or adapts a distance learning program from another country?

Don Ely: I have a series of prior questions that I usually run through when I work with people in developing nations and some of them may be obvious, some of them may be helpful. The list goes something like this:

What are the educational needs; have they been determined; do we know what the shortages exist in personnel and what kinds of needs there are?

Secondly, how well are these needs being met by existing educational systems? Where are the shortfalls; where are the gaps, where are they being met successfully?

Thirdly, what are the alternative ways then to meet these needs? Through the traditional system; through slight modifications of traditional systems, through an experimental system?

Fourth, is distance education an alternative? Is that one of the possible ways, and if so, is it the most cost-effective alternative? Then, is it politically wise? And finally, is it educationally sound?

That's a litany, and each one of those has a lot of sub-questions. But those are the things that I ask as I work with people in developing countries who say, "Let's go ahead with distance education." I say, "Just a minute, there are prior questions that we have to get at." And these are the ones that I try to raise and work out with them before we make a decision.

Laura Randall: Great, thank you. Ralph, how would you like to take a crack at that one, what are some considerations that you take into account?

Ralph Meuter: I really liked what Don had to say because it gets right back to fundamentals of the educational process. What I would add to that is, combining this national priority of distance education techniques with other national priorities. For example, many developing, developed and other nations have a priority in the economic development of their own country. In order to achieve those goals, they must face some prior educational questions. And they become very enormous and it's where education and technical delivery of education helps to solve, say, a training issue, vocational training, which meets the goals of economic development or industrialization or what have you. So in a capsule, combining national goals, combining national needs is a very helpful way to solve several problems simultaneously.

Laura Randall: Great, thank you, Ralph. Susan, how about on to you, what are some thoughts that you have on this?

Susan Tucker: Well, I really think Ralph and Don did an admirable job—I really can't add anymore.

Laura Randall: OK, are there any questions from our other callers regarding this? What do you feel are some questions that need to be answered when you look to another nation for a distance learning program?

Janet Whitaker: This is Janet in Phoenix again. I would say that one major thing that needs to be looked at is organizational structure and how does what develops in one place relate to the particular organization within which it was housed.

Don may remember, we talked about that at an AECT conference, that it's very important that you understand the political structure in which you are working; whatever the bureaucratic process is needs to be addressed, because the countries of the world don't always operate the same.

Laura Randall: That's very true. Anyone else? (pause) OK, why don't we move ahead to our next question. Our final question is—Ralph, have advances in telecommunications technology made, shall we say, a global distance learning model a possibility?

Ralph Meuter: Oh, definitely. I think it's quite clear that these newer methods of overcoming distance and serving isolated people have given us opportunities we never had before, and thus, it's an opportunity for establishing something like global universities. Lots of names and lots of people are talking about the University of the World and other sorts of ventures. We now have the ability to seriously address those sorts of things.

My caution and concern is that so far, many of these discussions that I've heard or been involved in tend to be a little superficial in the sense that conceptually, they are understandable. But the difference between the conceptualization and the pragmatic mechanics of getting it done is a long distance and a lot of hard work, and that's what I see as the challenge to us in the global setting.

Laura Randall: Thank you, Ralph. Susan, what are your thoughts on this? You mentioned in a previous conversation a system that had been set up by the EEC. Is that something that you feel is sort of a trend, something that a global system could be patterned on?

Susan Tucker: Well, I think that we have to figure out some way to pool a lot of the similarities that learners do have across all the different systems, so that it is possible to cut down on some of the duplication, because you never have enough resources.

The big difference is between Japan and the United States about how to even go about this task. What Don was bringing up, were the basics or essential questions to ask. I think they're so essential, we forget them and we have to constantly bring them up again.

To adopt anything without adapting is very, very dangerous. This whole business of truly appreciating cultural differences is very, very hard. I think it's essential, that we see differences in cultures as strengths, not as weaknesses. I think that's been the negative in terms of when we dealt with technology transfer. In other countries, there's sort of been an accusation against Americans, particularly that we have come from a position of cultural superiority and technical superiority and it's not always true that bigger is better.

Laura Randall: That's a very good point, Susan. Don, what do you think about this?

Don Ely : I'd like to just put a great big applause meter on both of the previous comments because I think you've looked at the larger global question and I think that is an important place to begin and to constantly remind ourselves of it. I've been a little more mundane in my analysis of this question in thinking about a model.

I believe that the British Open University has created the global operational model for distance education. I find that developing countries have taken that British model and they've modified it for their own use. But they've always retained the essence of the course teams, of many of the management strategies, and of some of the distribution systems. It has permitted a *lingua franca,* an opportunity for one country to communicate with another about distance education because they have followed that model.

So from an operational sense, the British Open University model has provided a global model for many countries to follow, and permitted communication among those countries because they have essentially followed the same model with minor adaptations for local, political and cultural reasons.

Laura Randall : I understand that Sally Johnstone is on the line, are you still with us, Sally?

Sally Johnstone : Yes I am.

Laura Randall : Sally, would you care to comment on this, do you think we are moving any closer to a global model here?

Sally Johnstone : Well, I'm just sitting here, amazed, actually, listening to what everyone's saying and learning a great deal about how to think about some things that I hadn't really considered in terms of an international model. I don't really think we're moving toward a global model because I think what we're trying to do is solve the local problems and the individuals who have been contributing thus far seem to be very, very sensitive in a very positive way to paying attention to what those local problems are and trying to come up with unique solutions to those local problems. I'm not hearing anything that says there's really a global model, yet. And that's the end of my comment.

Laura Randall : Thank you, Sally, You know you always run the risk of getting picked on when you dial in here.

Sally Johnstone : It's only fair.

Laura Randall : Is there anyone out there besides Sally who perhaps would like to comment on this topic?

Adegbcyeea Kadree : This is Adegbcyeea Kadree at the Black College Satellite Network out of Howard University in Washington. The audioconference so far has been really extremely interesting. I'm very interested in the work that has been done by Don Ely, especially, and Ralph from California State University and people like Will Shaw at USAID.

However, one of the main selling points of distance learning is that it provides symmetry. It also provides access to those people that wouldn't

otherwise have access to good, decent education.

Why is it then that there is so very little done in Africa? I concede that Ely has done some work in Indonesia. When we look at it again, we'll see that Will Shaw has done a hell of a lot of work in Indonesia. A lot of people are moving either into the developing world or the developed nations, as opposed to the underdeveloped nations. Is there a particular reason for this? That is one.

Secondly, how can we encourage governments of developed nations to help those underdeveloped nations and bring them into this century. There was some talk earlier about the West going too fast and things of that sort. But we cannot afford to leave them behind now. This satellite technology is one of those levers that we have now that can bring everyone really up to date.

I'm addressing the question to each and everybody on the panel; that is Don Ely, Ralph Meuter, Susan Tucker. I also want to let you know that we have our second annual conference out of Miami, where I'm calling from now. You have talked about having tutors and people who understand the technology a little bit better, people working in the background. That's basically what our conference is focusing on and, if anyone is interested, they can reach me. My name is Kadree at (305) 374-0000, Room 1601. Please, I want to hear your answers.

Laura Randall: Would anyone on the panel like to respond to his question?

Susan Tucker: Well, I think its a very, very powerful question and I think it's something that we've been struggling with. I guess even in the U.S., it's a fact that the gap is widening between school districts, the districts that are typically the "haves" and the "have nots," and that's not going away, it's getting worse. So, it's something we have to cope with. We have very personal needs within our own country to deal with it. I think on a broader scale it is the difference between, if you want to call it the first, second, and third worlds, and why, even in the developing nations, one of the biggest problems they're dealing with is the brain drain. They need technologically trained people, the local translators, if you will, to bridge the gap between technology and applying it their own home countries.

Those countries are not doing a good job of holding those people and attracting them to stay in their own country. And what Don was talking about earlier, about trying to translate at the local level is the most powerful way to take people trained in the U.S. and then try to get them to go back.

Don Ely: This is Don Ely. My perception is that we have a tremendous shortage of qualified educational personnel, teachers, professors, call them what you will. I think technology is being put to its very best use when we're able to provide education for people who would be deprived of it otherwise. They physically would not have a person to lead them as teacher or guide.

Through interactive radio, through television by satellite and videocassette and other technologies, we're extending the classroom to people who would be deprived of teachers, not just enriching the classroom as we think about using tradition audio-visual media, but we're

actually performing a teaching function that would not happen if it were not for the distance education program. There are children in Kenya today, children in parts of Indonesia today, children and adults in China who would not have education if it were not for technology serving as a distance educacion tool.

Laura Randall : I think that's a very good point, Don, thank you.

Adegbcyeea Kadree : May I add something?

Laura Randall : Certainly, go right ahead.

Adegbcyeea Kadree : The Kenyan program that he mentioned is basically like the Nicaragua mathematics program that was used around '77. There was something done in Bunga County in Liberia recently, but that's also been muted. What I'm saying is that, I believe it was Susan Tucker who said rather than bring people here to the United States, what's the point of having the technology when somebody can even teach from the classroom in the United States and downlink it anywhere whether by interactive radio or other means to any of these sites? I quite understand what she meant, you know, child beginning at home.

But there are so many underserved populations in the United States and you know those need to be taken care of. But at the same time, using, maybe I'm being a little bit political here, but I really don't want to be, because I think when people are taught, when people are educated, a lot of them will be better citizens for our world, and most of the strife and things we have now just wouldn't be there.

So many parts of the world are so poor and there is so much rich technology here and this place is so rich. I just don't see why we're not extending some hospitality, educational hospitality, or intellectual hospitality, call it what you may, to those countries.

Laura Randall : Is there any response?

Don Ely : This is Don Ely. All I can say is that I agree and the kinds of assistance you're talking about have to be politically motivated first. I expect because when we use the normal logic of people in need, we don't seem to get response. When we use the political argument, we seem to get a better, more active and financially helpful response.

I just think it's incumbent upon people who feel strongly about this to continue lobbying those who have it within their power to provide the finances to start these programs, and then to assist locally in deriving local revenue sources to continue programs, not just the shot-in-the-arm; something to stimulate the program is necessary, but then to provide ways and means to continue once it's started. I agree, it's a desperate need and it's something that we all need to participate in.

Laura Randall : Thank you, Don. I get the feeling that Stan Huffman was trying to ask a question earlier. Stan, are you still with us?

Stan Huffman : Let me just comment on the audioconference today. It's been most fascinating and very

interesting to me because I just came back this morning from a conference where we were discussing telecommunications, and international teleconferencing was one of the subjects we discussed. So, this is very timely for me.

Laura Randall: Thank you very much. You have just said just about everything that I wanted to say. Our 90 minutes, I'm afraid, are about up. This has certainly been a lively and informative discussion, and I know, like Stan, I certainly enjoyed hearing all of the points of view. I'm going to put my neck on the line now. Don mentioned earlier to me that he had a bibliography on work concerning international distance learning and he had suggested that perhaps we allow people who are interested to get a copy of that. If Don is still willing, we can make that available, Don, is that all right with you?

Don Ely: Yes, your tax dollars at work, ERIC at your service. I will have the bibliography to you and if you wouldn't mind duplicating for those who are on the line, we would be happy to cooperate.

Laura Randall: Not at all. Lou just gave a big sigh, but I'll do it anyway. If anyone would like a copy of this, why don't you call us. Our number again is 202-863-0890, and you can just ask for the bibliography on international distance learning, and we'll be more than happy to send that out to you. Another PSSC member service.

Let me thank our discussion leaders, Don Ely, Ralph Meuter, Susan Tucker, for an absolutely marvelous discussion, and for all their work and effort. And I'd like to thank all of you for dialing in. I also want to remind you that the big exam is coming. The final audioconference in PSSC's Year of Distance Learning will be November 16, again from 4:00-5:30 p.m. Eastern time. The title for this, appropriately enough, is, "Distance Learning: The Final Exam." We anticipate a good crowd for this briefing, so please sign up as soon as possible to reserve a line.

Again, I thank you all for joining us and have a good afternoon.

"Distance Learning: The Final Exam"

A PSSC Member Audiobriefing

November 16, 1988

Laura Randall : Good afternoon, everyone, and thank you for joining our conference. My name is Laura Randall and I'll be moderating today's discussion. This is the sixth and final audiobriefing in PSSC's "Year of Distance Learning." In today's conference, "Distance Learning: The Final Exam," we hope to offer a look at how different program providers assess what they're doing, and perhaps more importantly, how well they are doing it.

Thus far in the year, our member conferences have been a forum for discussion and exchange on key issues surrounding distance education. The themes of these conferences have included: preparing students and instructors for distance learning courses; the economic realities of distance learning programs; technological innovations utilized in distance education programs; and international trends in this field.

For the next 90 minutes, we'll be addressing the topic of techniques and methods for evaluating distance learning programs. With us today are experts within different disciplines of distance education to discuss how their individual organizations evaluate their programs. Today's conference will follow roughly the same format as we've been using all year. After a brief introduction of our panel members, I'll ask them specific questions regarding today's topic. These questions will include how and why they conduct evaluations, and how their specific organization uses the information collected from these surveys. Also, we'll examine formative and summative methods of evaluation. Along these lines, our panelists will discuss just what distinguishes these two types of evaluations and deliberate the affordability and reality of using these methods.

Finally, we'll take a look at whether we should or do evaluate the use of the medium or the quality of the program when we survey program participants.

After each of the questions has been addressed by each discussion leader, there will be an opportunity for all conference participants to ask questions and to discuss their particular points of view. I do ask, however, that each participant identify himself before answering for the sake of those transcribing the conference.

Now, without any further ado, let me get the show started by introducing our illustrious discussion leaders. First of all, joining us is Dr. Michael Thomsen of Arizona State University, where he is the Manager of Educational Telecommunications at KAET, Channel 8. Michael, thank you for joining us on such late notice.

Michael Thomsen : Thank you.

Laura Randall : Additionally, we have with us Howard Mevis of the American Hospital Association. At AHA, Howard is the Director of Educational Product Development and is involved in the evaluation of program development there. AHA has been a real innovator in the use of evaluations and surveys in program planning and I think Howard certainly has quite a bit to tell us about this issue. Howard, thank you for taking the time to join us this afternoon.

Howard Mevis : Pleasure to be here today, Laura.

Laura Randall : We also have with us today Dr. Marie Oberle, Director of the National University Teleconference Network, out of Oklahoma State University. Dr. Oberle has been associated with NUTN from its beginning and has played a key role in its development. Marie, thank you for agreeing to participate in today's conference.

Marie Oberle : My pleasure, Laura.

Laura Randall : And finally, we have a man who really needs no introduction—Doug Widner, the author of *Teleguide: A Handbook on Video-Teleconferencing* and an integral part of the PSSC staff. Doug is currently the Vice President of PSSC, and my boss, and is largely responsible for our involvement with the American Management Association's AMA By Satellite. Doug, thanks for agreeing to share your deepest insights with us.

Doug Widner : Thank you, Laura, I'm glad to be here. It's going to be fun for a change for somebody to be asking me my opinions.

Laura Randall : Michael, why don't we start today's discussion by directing our first question at you. I'm hoping you can explain for us the elusive terms of formative and summative evaluations. What is the difference between these two methods and can they be used to evaluate the same program?

Michael Thomsen : Yes, they sure can and, as a matter of fact, I'm going to ask you all for some formative evaluation. By that I mean, if I start to provide you information that's not what you're after, either I'm spending too much time on the obvious or I rush too quickly over something that sounds unfamiliar, break right in and let me know.

I think that in order to talk about formative and summative evaluation, the first thing that I find it necessary to do is spend a little time with the notion of evaluation itself. I see so many kinds of procedures and documents that are sometimes referred to as evaluations in a distance education or media effort. We often show what we've done to others and say, "How did you like it?", "What do you think I did right or wrong?" Those things may be important, but I think it's best if we start with a much more tightly defined description of what we mean by evaluations. If any of you find that confining, then we can come back to that afterward and see whether it needs to be expanded some.

To my way of thinking, the central issue in evaluation is, does this instruction accomplish what it is supposed to? And if we're going to find

that out, it means we have to know explicitly ahead of time, what it was supposed to accomplish. Now, I would start with the premise that whatever else it is supposed to do, instruction is supposed to impart abilities that the learner didn't have before. And the way we discover abilities is by looking at performance. Evaluations pretty much have to be a mirror image of an objective. If we have objectives that describe a performance, and we will accept as evidence that the learner has acquired an ability that he or she didn't have before, then we've got something that we can look for. We can set out and find it and measure it with an evaluation tool. If we don't have that kind of yardstick to go by, then our answer to the question, "Does instruction accomplish what it is supposed to?" is bound to come out, "Gee, I'm not sure."

So I think starting with an explicit objective is almost a necessary requisite before you go any further with any evaluation. Now that doesn't necessarily mean that we can't be dealing with an attitude as well as an ability. That's simply an objective in the effective domain and we can still say, "What behavior would we accept as evidence that that attitude change has occurred?"

Now, if we have a standard to go by, then I think the easiest starting point here is to talk about summative evaluations. Summative evaluations simply deal with the question as it refers to a complete instructional package. I've got to be a little bit vague, I think, about whether we're talking about a semester's course or an individual lesson, or whatever you think is an increment of instruction that you would reasonably expect would accomplish its objectives within that self-contained package.

We implement it, put it into practice, use it with students and find out. Did they have the abilities when we got finished that we expected they would have? And this may be through a pencil and paper test, it may be observation of student performance, it may be a practical test, whatever you think will detect the ability that the learner is supposed to have developed.

Now, if you want to be, of course, a little more thorough, you can carry this a bit farther. Perhaps someone walks into your instruction with the abilities in the first place, and naturally they didn't learn a thing while they were with you. So you may want to measure at entry and at exit, pre- and post-test. You simply have to decide whether the proposition that they didn't carry those abilities in with them at the beginning of instruction is a safe enough proposition so that it's not worth spending the extra time and money involved in conducting a pre-test. If you're pretty sure that it's unfamiliar material, those abilities aren't there, you might want to skip it.

On the other hand, if you want to be still more thorough and try to rule out the prospect that they might have gained those same abilities some other way—they read it in the papers, they learned it from friends, it just happened to take place during the time they were under your control—then, you may want to go farther yet and use some means of ruling out any explanations for where those abilities came from.

And of course one common way of going about that is to use a control group. That, obviously is not always readily accessible to us, particularly in a

distance instruction setting. You can't necessarily achieve all the experimental conditions you might want. So you must decide whether, if the abilities weren't there to begin with and they were there at the end, that's good enough for you and you don't need to rule out any competing explanations.

At any rate, when we talk about summative evaluations, we're talking about implementing a complete increment of instruction and finding out whether it imparted the abilities it was supposed to.

The notion of formative evaluation is based on the idea that there is some amount of time, money or effort we're willing to spend and we sure don't want to end up spending it all and finding out too late that we didn't achieve what we wanted to. We spent everything we had on a television series or whatever goes into a distance instruction package and, by golly, it's all down the drain because we came up with a package that doesn't work.

So, consequently, what we're looking for is information that will increase the likelihood the package we've put together is going to be successful when we do finally implement it with the learners in mind. Now, that means necessarily that you've got to try it out before it's all done. In order to do that, there're some sacrifices you make. You may have to test it in a laboratory environment that is not perfectly representative of the situation students are ultimately going to be facing. You're almost certainly going to be testing fragments rather than a complete system.

How will you know whether a particular exercise that, out of context, seems to do very well at teaching the components of a block of instruction, will really work once it's all put together? Well, those are risks that you must take. Formative evaluation is not a substitute for summative evaluation. So what one needs to do is break down the objectives for the lesson into smaller components and decide which of these is likely to be crucial to the learning process. At some point, you may be concerned with student attention—you say, "If I haven't got their attention, I obviously can't accomplish anything else." So let us see whether a particular visual device that we're using here is successfully getting student's attention. Did they see it, can they tell you what was on the screen?

At any rate, you would isolate small, fine component objectives and test portions of the instructional package, particular techniques, particular materials, and see whether they accomplish those component objectives. You're still looking for a measurement of performance, but it's going to be a smaller, finer performance and it's going to be a consequence of something that is only a portion of the instructional package.

How much of that you do, and whether it's worth the effort and expense that you go to, is going to depend a good deal on how high the stakes are in failing.

Children's Television Workshop, obviously, with a budget of many millions of dollars for production, finds it necessary to test specific techniques early in the process before they've gone out and done a whole year's programming.

One other thing I might just add, formative and summative are two thirds

of the continuum. One that you seldom hear mentioned is ultimate evaluation. Ultimate evaluation goes a step beyond summative. With summative, we find out whether the abilities are there at the close of instruction.

With ultimate, we look a little farther down the road, maybe one year or two years after and find out whether those abilities were retained; did they transfer to other tasks; did they result in a long-term outcome that we hope for, like better job performance or better performance in later courses. The problem is that there are going to be many other kinds of factors that can influence those outcomes, not as a direct result of instruction. But it certainly does give you some handle on whether the results of instruction are very temporary or whether they are longer term.

That's a quick race through it. Please comment, questions, where do we go from here?

Laura Randall : You mentioned something, just a moment ago, Michael, about the costs and whether or not it's worth it, and I think that's one area that we certainly want to address. Marie, can I move to you; can I ask you to perhaps address that in terms of NUTN—is this the type evaluation method that would work for you, or are the costs too high?

Marie Oberle : Laura, our situation is a little different than ad hoc continuing education programs. I rely more on assessment to take the place of formative evaluation. It's very important because the stakes are high for our universities that are originating a program. They have to determine that, in fact, there is a need for that information because it means that they'll be successful in marketing that program and will be able to cover the costs of production.

There are a number of assessment procedures that they utilize. Many times it's just surveying what the critical issues, the social issues, and so forth are in various professional areas. They do more of the assessment than we do at the central office.

The cost does not necessarily have to be great in that kind of an assessment. The summative, of course, there's little cost to that and I think it's critical for us to use in our continuing education as well as the for-credit kinds of programming. The form, and I'm sure what we're evaluating, is very different than in credit. Our objective is to make sure that the conference or the training meets the expectations of the participant. If we feel that we have conveyed to them, in fact, what they can expect from a program, if they're satisfied with that, then that's sufficient for our evaluation.

Later on we'll get into the specifics that we try to evoke on our evaluations. But that's what we're trying to evaluate. These are adults, they know what their needs are, and are they satisfied with the kinds of information that they got from the program?

Laura Randall : Well, that certainly goes back to what Michael said, that no matter how it's packaged, you're determining at the end whether the people got the information that they were seeking.

Michael Thomsen : I think that Marie has made a couple of really excellent points there. One of them has to do with the fact that, although I was talking about evaluating the effectiveness of instruction, it is not necessarily the only thing that you need to be concerned with. Where people are selecting, deciding on the purchase of instruction, deciding whether they're going to sign up and pay their fees, it is certainly of paramount importance to know whether you're providing instruction that meets their expectations and that they wish to sign up for. That is a separate question, but an extremely important one.

The other important thing that I heard, obviously, is if you are carrying on a continuing program of instruction, every time you carry out a course, you're gathering in your summative evaluations valuable indications of what works and what doesn't work that you use to increase the prospect of success the next time around. And since that's the purpose of formative evaluation, summative from the previous go-around accomplishes that.

Where summative evaluation is especially important as a distinct concern, that's where you're venturing out in uncharted waters—new kinds of content, new kinds of learners that you haven't had experiences with before.

Laura Randall : Thank you, Michael. We're going to move on now to Howard. Howard, how does AHA view formative and summative evaluation? Would the results from that type of survey be worth the time and money that's necessary?

Howard Mevis : I think that we're very much similar to the NUTN network in our approach to evaluation, in terms of the fact that we have to identify, through needs assessment, through surveys and other types of research, marketplace needs. And we have to be able to fulfill those needs. We do that in a couple of different ways. And we want to be able to test whether or not we've been consistent with what we've learned in the marketplace before presenting a program.

Our real thrust is identifying, did we meet the expectations of the viewer and did we deliver what we've promised in terms of the promotion and the program?

Laura Randall : We're going to get into again, Howard, just why you did that. Doug, what words of wisdom can you impart on this?

Doug Widner : Well, I'm glad you called on Howard first because I want to tattle on him a little bit. In an interview, two and a half years ago, Howard said to me that if you want to know whether your evaluation instrument, and I know we're going to come around to that in a few minutes, is any good, you want to fly it by your marketers. And I think that it points to a connection that, for those of us who do continuing adult or continuing professional education, is much more important than the summative/formative argument.

We really do evaluations to answer three questions: The first question is, "Did we tell you something you didn't know?" The second question is, "Did you believe us?" And the third question is, "Was it important?"

And what do we do with the answers to those questions? We will turn them around into testimonials that we use to sell you the next program. And that's what evaluation, I think, means to us. But I appreciate the academic approach.

Laura Randall : Unfortunately, Michael, I think you have been outnumbered in terms of your for-credit type of evaluation.

Is there anyone else out there that has questions or comments regarding this type of evaluation?

Howard Mevis : This is Howard Mevis. I'd like to just add to what Mike Thomsen talked about in terms of formative and summative evaluation in that more and more we're seeing the use of satellite communications or audio-teleconferencing for actual course work in degree programs.

For example, what's going on in New Mexico with nursing right now is an example where formative or summative evaluation is going to be paramount to determine that the learning has taken place in terms of their developing a long distance learning curriculum for people who wish to get a baccalaureate degree in nursing. So that as more and more programmers come on board with extended or coursework kinds of programs, the type of evaluation that Mike Thomsen talks about is going to be very important. But for ad hoc programmers like Marie and like myself, that's not going to be paramount. We're trying to determine whether or not we've met a market need.

Michael Thomsen : Laura, this is Mike. I don't feel outnumbered at all because I am in complete agreement with the other comments that are being made. I think if we start by asking what are summative and formative evaluation is all about, that's a perception that I have offered you. But, at the same time, those questions about measuring the effectiveness of learning are by no means the totality of what one needs to learn, particularly when you're in a situation where marketing is of the utmost importance. And I think questions of appeal and satisfying expectations and marketability are extremely important in the success of a program like that. They just have to be a little bit differently emphasized.

Laura Randall : That's very true.

Doug Widner : I don't mean to denigrate summative and formative evaluations by any stretch. As a matter of fact, Marie and I have had a number of conversations in the past about how could we introduce the concept of summative and formative evaluations into the ad hoc videoconferencing game. The problem is, of course, is that you don't know who your audience is, so you can't do the pre-testing. You don't have any control of your audience after they leave the viewing site. You can't do the post-testing or it's difficult to do the post-testing and it all costs a lot of money. But I think we're all aware of the fact, and I think I can speak for at least Marie and Howard, that the kinds of evaluations that we have done really don't tell us downstream whether or not we're teaching.

Howard Mevis : Doug, this is Howard. I'll go a step further to say that

I find it almost impossible to do any formative or summative evaluation of an audience for one of our teleconferences when I've got 6,000 hospital administrators in the audience. There's no way I can reach that many people, even to reach 500-600 and get 10% of the audience would be impossible. The cost, the time involved, to do one program would be astronomical. And the time commitment of staff would not allow us to do several other projects that we think are important.

Laura Randall : I think that answers a question that we originally intended to ask. Formative and summative look good, but are they affordable and realistic? And, I think, for you, Howard, the answer is no. Is that correct?

Howard Mevis : Correct. I think, and I go back to the example of what's happening in New Mexico right now where they're reaching maybe into maybe 10 or 12 different communities with maybe 30 or 40 registrants. There's an opportunity to determine if we were successful in imparting new knowledge, new education, new skill development, because it's a small group and the learner can actually demonstrate some sort of skill development.

But when you're talking about an audience that's a thousand, it's just out of the ball park.

Michael Thomsen : Laura, this is Mike again. I think another part of the issue is, does it answer the question that you most urgently need to have answered right now. And it may very well be, as important as the question is, of whether people learned what you wanted them to, maybe the top priority question is, "What do I need to do in the teleconference to make you want to attend, to make you want to be part of a conference like this next time around?" And you need to get a handle on that one before you go on to a question of what people are learning from it.

Doug Widner : Now, Mike, be careful, you're beginning to sound like us.

Louisa Nielsen (Broadcast Education Association) : This is Louisa Nielsen. I'm not a part of the formal group, I'm more part of the informal group. May I say something?

Laura Randall : Absolutely, Louisa.

Louisa Nielsen : I was thinking about your pre-testing point that it's very difficult, of course, to pre-test an audience that you have no control over, but one thing that might be able to be done is, perhaps more of a pre-assessment of the facilitator's idea of what kind of audience is going to be available for a particular kind of program.

When I was with George Washington University and we were thinking about downlinking programs, there were a number of programs that we did not downlink because we knew we didn't have an audience for them. Perhaps the focus was more rural or for more state university kinds of audiences. Yet we were never asked whether or not that was an important area for us and should producers who belong to the particular network we were downlinking continue to do these kinds of programs. Were they important to us, could we use them?

So maybe that kind of pre-assessment could be done in terms of facilitator's information about the general population that they would attract at their site.

Howard Mevis : This is Howard Mevis. In support of that concept of pre-assessment, one of the things that we do here at AHA in program development, is that we'll do different stages of assessment or research.

Number one, we'll do some topic identification research. But once we land on a subject or topic area for a teleconference, we'll have staff make 60, 70, 80, up to 100 telephone calls to people who are in the target audience for a program to make sure, number one, are we on track, number two, is it a subject that they're really interested in, is the niche within a broad subject what they want, and are they willing to pay for it? And do they have any specific issues that they'd like us address so that we make sure we target the program to the audience needs as much as possible?

And then we'll even go so far in the evaluation as to compare what we learned in the evaluation of the program with what we learned in the pre-assessment or the what we might call product testing before the program airs.

Louisa Nielsen : That sounds like something that I would like to have done more frequently. This is Louisa, again.

Howard Mevis : This is Howard again. Louisa, we spend a great deal of time trying to do that. In fact, I have one position on my staff, the Assistant Product Manager, 70% of whose focus is to make sure that we're finding out what the audience wants within a program so that we make sure that the niche, the specific information we are going to impart in 90 minutes or two hours, is what they truly want, what they need. Any topic may have five or six or seven different issues. But I suggest that within 90 minutes, two hours or even three hours, your ability to cover all of the issues is impossible. And what you need to do is identify that piece of the issue or a particular subject within a major issue that you need to address. You can only do that by talking to the audience for the program prior to the program airing.

Doug Widner : This is Doug Widner. Howard, that's what I meant when I stated earlier that marketing and evaluation are so tightly linked together that sometimes it's hard to distinguish. What I miss is the fact that when we evaluate to market, we may be preparing Chinese food, if I may quote an old proverb, that is, that it tastes good, but you're hungry an hour later. And we do need some form, some method of getting formative results that tell us, "Did they really learn?"

It's easy to have people walk out and say, "Oh, yes, I heard new things, it was a good show, your production was exciting, etcetera." Unless we can find some way of creating for ourselves a methodology like the educators, like Mike Thomsen is talking about in his formative and summative evaluations, I don't know whether our methods of production are paying off in terms of really preparing these people for their work environment.

Howard Mevis : Doug, this is Howard Mevis again. One of the interesting points that Mike Thomsen brought up was the issue of ultimate evaluation as the final step in what would be an educational model of evaluation. We looked at that here at AHA and wondered, "Could we, six months or one year down the road, go into a hospital that had viewed a teleconference, and determine whether or not information and the skills and the training that we had imparted during the teleconference was actually in use?"

What we found is our ability to do that was going to be difficult because of turnover in the hospital. And that people who viewed the teleconference six months later may not be there.

Doug Widner : That's a good point.

Joan Milczarski : Doug, this is Joan Milczarski at AMA.

Doug Widner : Hello, Joan.

Joan Milczarski : I agree with you about wanting to do more in-depth evaluation and try to find out if people are really learning or not, but I see two main stumbling blocks. One is financial. Is enough of the audience concerned about that issue to pay an additional price to get that information. And the other stumbling block that I see is the administrative part, to which other people have also referred.

Often program producers don't have direct contact with the people who are actually learning and if you're trying to administer evaluations through an on-site facilitator, you're dealing with different types of organizations in different locations and frequently they have their own evaluations that they want to administer. They will take the ones that we give them and discard them and sometimes they send us copies of theirs, which aren't necessarily summative types of evaluations, either. It's more of a marketing type of evaluation. But, I think it's very difficult to get people in different types of organizations to agree that they need the same type of approach.

Doug Widner : Good thoughts, Joan, thanks.

Michael Thomsen : Laura, this is Mike Thomsen again. I'm going to jump to almost the far end of the spectrum because, I think, the very fact that we've used the words, "formative" and "summative" evaluations to start off with brings to my mind a situation in which there are specific learning outcomes that we're looking for that are common to a group and we're going to set out to do the best job we can of seeing that those come about. And they may not necessarily be the case in a lot of teleconferences.

In the first place, people may attend a teleconference to transact business or to establish linkages with other important people in their profession. Or to the extent that they do have learning objectives, there may be a different slate of learning objectives for almost every participant that is involved in that teleconference. So there are going to be situations where it would be very difficult, simply because we think formative and summative evaluations are important.

I think what is maybe more important in marketing teleconferences has to do with what people feel the need for, which, of course, has already been mentioned. And then perhaps, to the extent that a teleconference is a specialized tool, it costs some money, people have to arrange their schedules to be available at a simultaneous point in time. Maybe we need to be sure that whatever the reasons were, for attending a teleconference instead of reading a book or making a phone call or using some other form of media, that we use the technology in a way that made those people glad they cleared their schedules to be on hand at that particular time.

Laura Randall : That's a very good point.

Marie Oberle : This is Marie and I think that you're really on target, Michael. In fact, I'm working with the ITCA to put together a matrix that programming receivers can look at as they determine objectives. And then it challenges all program providers to be very accurate in their description of their program so that the person needing the training can see if in fact that will meet their needs, because they are very diverse. You're exactly right.

Laura Randall : Great. Thank you very much, Marie. I'm afraid we're going to have to move on. We're going to, I'm sure, keep coming back to this subject. I'm going to move to Howard, now, if that's alright. Howard, let's get at why AHA evaluates programs, what's your motivation? What do you want to get out of these evaluations?

Howard Mevis : Life, liberty, and the pursuit of happiness, I guess. I think what we're really looking for, Laura, is two principal reasons to evaluate. Number one is, we want to know if the program we've presented has met the needs of the audience. That sounds very simplistic and it doesn't even sound important, but that's important for us because if we don't meet their needs, we know they're not going to come back and buy subsequent programs.

Did we meet the needs of the audience with the program? And then second, to use it as a market study to determine how they learned about the program, whether they liked the production of the program, and how the program compared with an educational seminar. We want to find out how we fit into that spectrum. And then, within the specific program issues, did we meet the objectives laid out in the promotional brochure and in the teleconference workbook? Did we satisfy the audience in that aspect?

Laura Randall : When you've collected all this information, Howard, do you necessarily use it to improve the programs or to find a more specific target audience? How do you use the results?

Howard Mevis : Well, we use the results I'd say two ways. Number one, we use the results for comparison with previous programs of a similar subject or the same subject. And secondly, we find how we're doing in comparison to all of our programs. So we can identify any potential problems or trends in our audience.

I might also add to that, that we also use the data to determine any types of changes. For example, we used to ask questions about the length of our programs. And we learned over a period of time that people wanted shorter programs. So we made those kinds of changes. Those are easy kinds of information to get and use in making changes to be customer-oriented, to create satisfaction in the participants.

Laura Randall: Do they precipitate format changes as well as content changes?

Howard Mevis: One of the things we have been able to do, or required to do as a result of shortening our programs, is spend less amount of time on multiple issues within a topic. We have to be real clear on what we're going to do in the 90 minutes or the two hours that we use to present a program.

It used to be four, five, six years ago, people had to leave the institution and they would go for four-hour teleconferences with lunch included, and they'd sit back and we could spend a lot of time looking at issues. Now, in 90 minutes or two hours, we have to throw our darts real carefully and make sure that we hit the bull's eye.

Laura Randall: Good. Thank you very much, Howard. Marie, can I move to you, now? Do you feel that NUTN evaluates programs to improve them, to justify them, or perhaps as Howard does, as a market study?

Marie Oberle: I would say that two ways are fairly identical to Howard's. We do it to improve them because we want to find out the format that's most desirable, how they feel about content, if we are on target, if it's current, what about the presenters. Again, the length of the program as well as how far will the participants drive to view a teleconference. This kind of information has been extremely useful. We use it then in a formative way in putting together additional programs. We will accumulate our evaluations over a number of years. This is our seventh year in programming. We look at many aspects. One you might be particularly interested in when we talk about what part of the program are you evaluating, what really is important.

We look at all of those and we try to come up with trends that are important, that might be of interest to the group. One of the latest bits of information that we've put together was that in 81% of the programs, the overall rating that was given to the presenter was a key indicator. If the presenter was given a very high rating, then the program was given a high rating. And in another 12% of the programs, where there were low ratings on other variables of the programs, and yet the presenter's rating was high, it was still a very high rating for the program. And I think the implication from this study suggests that more discrimination in the selection of a presenter, more time invested in his or her training and more concern about camera presence will produce a program with a higher impact on the participants. So this is the kind of information we pull from our evaluations.

Laura Randall: That seems like a very valuable lesson to have learned.

Marie Oberle : And then, of course, there is the market study. What are the reactions to the medium and what are some of the program needs, topics and so forth.

Laura Randall : Thank you very much, Marie. Doug?

Doug Widner : Well, I've listened to what everybody else has said and I certainly don't disagree with any of it. I'm speaking from the point of view of someone who has been a part of many videoconferences produced by all kinds of different organizations. But most of them ad hoc and none of them curricular.

There are just a few things that I think I can add. We have reasons why we evaluate. One of them is to answer the question, "How much money will we have to give back?" Evaluations help us do two things. They help us say to the people who complain, "Yeah, but you're unique. Twenty thousand other people thought it was terrific." The other question is, "Should we do it again?"

PSSC has been in the business for over a decade, of introducing the concept of training via satellite or videoconference to all kinds of organizations, non-profit and for-profit, and one of the reasons we always state up front to evaluate is that you want to be able to look at your results and use them for advanced planning. Was it worth it? Should you do it again?

And then, of course, something that's already been stated but I'll iterate is, "What about our product needs improvement?" and a carefully designed evaluation will always help you pick out those things that are weak. I think later on in this afternoon's program, we'll get into the particulars of what it is we evaluate. Other than that, I agree with everything that everyone else has said.

Laura Randall : Great, thank you, Doug. Are there any questions from anyone out there? Of the speakers, or in general? We'll of course have another period if questions should arise.

Howard, let's move on to some more specifics of the hows of evaluations. Can you first explain the methods that AHA uses to get a feel for how well their programs are being received?

Howard Mevis : Certainly. We start out with the Product Manager working with our product evaluation staff in developing an evaluation questionnaire and basically it boils down right now to about 25 questions that we ask people about the program.

The evaluation form is included with every workbook we ship out and we beg, borrow and plead for site coordinators to collect the evaluation forms and to return them to us within two weeks of the program. We're pretty successful at doing that. Last year, for the entire year, we had about 70% of our sites return evaluation forms to us. One program a couple of years ago, we had an audience of 18,000 people and we got 14,000 evaluation forms returned to us. And one of the ways we're successful in doing that is simply dropping a reminder in the mail, a postcard the day after the program.

For some programs where we see the trend line going down in terms of the number of evaluations coming back to us, we'll throw out these little postcards and the response line goes up a little bit.

So we found that to be a real good tool in terms of collecting evaluations.

We then take a random sample of evaluation forms, usually 600-800 evaluation forms and tabulate the responses and do a statistical analysis, write up a report, then the product manager will provide a report to his manager related to what we've learned from the evaluation. And that process usually takes a total of about six weeks after the program airs.

Laura Randall : You must be doing something right, Howard, because they sound like pretty good statistics to me.

Howard Mevis : This year we've had a little drop-off in the number of evaluations returned. We think that's a result of lower audiences for programs based on the fact that hospitals across this country have been reducing their work forces over the past two years. But at the same time, the percentage of sites returning evaluation forms has been pretty much the same.

If I can just list some of the questions that we include on the evaluation form, we're looking at types of questions that get at the production style of the program; questions that deal with specific program objectives; questions that deal with faculty and how well they are prepared and informed on the subject, questions about the program in terms of the time and effort, expectations, cost and overall values.

We look at questions related to comparing the teleconference with an educational seminar, with previous teleconferences, and we try to include marketing questions as to how they learned about the program, what attracted them to the program, the value of the workbook, and what types of future teleconferences they'd like to see.

And then we get some demographic information related to the job title of the respondent, the size of the hospital, and the status of the hospital—whether it's for-profit or not-for-profit. There's an additional open-ended comment area for people to give us those kinds of responses. And one of the things that we do ask our evaluators to do in the tabulation effort is to quickly scan through all of the evaluations that are returned and dump any ones that are of any substance and send them to the Product Manager for additional analysis.

Laura Randall : Thank you, Howard. Marie, how does NUTN go about conducting an evaluation?

Marie Oberle : Laura, many of the same characteristics are true of our organization that Howard has just identified. Our procedure has evolved over the years; earlier, we did extensive evaluations. Each participant would complete one that we would analyze, as well as the facilitator, who would complete a different evaluation.

Certainly, the information we want is incorporated in an evaluation that is completed by the facilitator. As Joan indicated, the receive sites have their own evaluations that they would like completed. And we find that in many cases, it incorporates the kinds of information that's useful for us.

So our facilitators have been very helpful and the summaries are then put on an evaluation form that comes to the central office for evaluating and then

those are returned to all of the receive sites.

Our evaluation is a three-phase operation and this is fairly new because from the experience that we've had in previous years, we've incorporated a check list of information that is put together by the originating institution. It's the kind of information that any originator would need to compile after thinking through their objectives and the format and so forth for their programs. So that is shared with the Central Office. The evaluation is a document that evaluates actually the same kind of information that the originator said that they're going to provide. So it's a check for the originator to see if in fact they did do what they said they were going to do.

As most of you know NUTN is a Central Office, a distributor of programs, and we rely on our members to develop those programs. We do offer training in the origination of programs, and the training really goes on throughout the year in terms of trying to upgrade and maintain the quality level that can be expected for all of our programs. And I will share those other documents if there is more time at the end of the session.

Laura Randall : Thanks, we appreciate that.

Howard Mevis : Laura, this is Howard Mevis. Can I add something to what Marie said, please?

Laura Randall : Absolutely.

Howard Mevis : Marie mentioned the site coordinator's evaluation. Something that we've done that is real valuable for us is we ask in the site coordinator's evaluation for some technical evaluation. In other words, the quality of the video and audio signal.

We look at ourselves in both C-band and Ku-band frequencies, so we know what we look like. But what we've found, because of the wide differences in hospitals' purchasing patterns for equipment, that we want to be able to target those hospitals that may be having reception problems, because of either the quality of their equipment or their installation.

So we've used that evaluation form to target hospitals that are having problems receiving our programs. We've been able to help several hospitals clear up some of their problems.

Laura Randall : Thank you, Howard. Doug?

Doug Widner : The way we term the instruments for most of the clients that we've worked with, that PSSC has worked with, has always been "happiness sheets," which is the survey, the post-event survey. There have been a few rare exceptions, but so rare that I can't remember them. The surveys all tend to look alike. They use the so-called Likert scale response system, from strongly disagree to strongly agree, anyway you want to express it, with an occasional question to fill in the blank. Most of our demographic information comes from "circle the most appropriate response" or "fill in the blank" type questions. And then we have a few comment fields, not many; comments are very difficult to statistically analyze.

We, as Marie and Howard both pointed out, do the two kinds of paper

evaluations, one for facilitators and one for participants, at least we encourage it to be done.

Especially in our work recently, as Joan Milczarski can testify, with the American Management Association, the facilitator's evaluations have become very important because the facilitators actually represent the client. They are the people buying the license to downlink the program. The participants are clients, nine times out of 10, of the facilitators. So, comparing and contrasting between the two sets of results is kind of interesting.

Then we also advocate a third kind of evaluation, which is not a paper evaluation, but we call it, for lack of a better term, a production team debriefing. And this is either a conference call or a face-to-face meeting that happens amongst all those people that put the program together. And it's an opportunity to either pat each other on the back because we've done such a excellent job, or to discuss what we thought went wrong and what can be done for improvement. But we do consider it a valid part of the evaluation.

Laura Randall : Thank you, Doug. Are there any questions from anyone out there or is there anyone who would like to share a particular method of evaluation?

Lou Bransford : This is Lou Bransford. I have a question for our participants. You've all mentioned in-house evaluations. These can be as biased as you'd care to make them. Typically, you're asking for information and you're hoping they'll tell you what you want to hear. What has been your experience with third-party/out-of-house evaluation? I'm supposing they might be more objective in reporting the outcome of your event. Has anybody had any experience with third-party evaluators?

Howard Mevis : Lou, this is Howard Mevis. We've had three or four occasions. Non-health-care people viewed a teleconference and give us evaluations, by writing articles about the program. For example, in Elliot Gold's *Telespan* newsletter, as well as just individuals that I've said, "Hey, go and tell me what you think." For example, Mike Brown at TeleHealth Associates in Boston has, on occasion, well not recently, gone and viewed our programs and written about them.

Lou Bransford : Have their findings generally agreed with your findings?

Howard Mevis : I think their evaluations tend to be more subjective in nature. In terms of what *they* saw, individual and personal perceptions rather than any kind of data analysis.

Laura Randall : Are there any other answers to Lou's question?

Glen Southworth (Colorado Video Inc.) : This is Glen Southworth. I'd like to hark back about 30 years when I was with the Army Signal Corps and we had a very extensive program in distance education using closed-circuit television. It had some very interesting implications.

The Signal Corps down at Fort Gordon, GA, also had a complete test and evaluation branch, where they kept track of all the different schools in the Signal Corps group there. And I got

acquainted with a number of the people and I got the impression that if the scores were not high enough, you change the questions.

Howard Mevis : Glen, this is Howard Mevis. How do you do that?

Glen Southworth : I'm not sure about that—what kind of collusion there was between the different training groups (at) the Southeastern Signal School, called "Tessie" fondly. But the evaluations were continuous on an almost daily, certainly weekly, basis. And what kind of feedback the instructors got I'm not sure.

One of the projects I was involved in, that I found very fascinating because it was all television instruction, was comparing the difference between an experienced instructor, somebody who really knew his material, and completely naive, essentially pulling somebody off the street and having him read the script, and I guess I kind of came to the conclusion that you teach practically anything if your students are motivated.

And that was one of the things that interested me when I was in Beijing. I got to talk to one of the people from India. I asked, "What motivation is there for the Indian population to watch the education programs that are broadcast by satellite?" And he said, "The motivation is entertainment. If the instruction is not entertaining, people don't watch."

Doug Widner : Painful truth, Glen.

Glen Southworth : I think your comments earlier on marketing are very, very appropriate. Somebody said (that) there's a difference between need and desire.

Lou Bransford : I wanted to comment on your changing the question, Glen. That is a true measure of formative evaluation. Many people have a formative evaluation, but they don't do anything about it. It doesn't make it right, but if you are going to evaluate, the intent is to do something with it, and one outcome of an evaluation that you should stop, get out of business.

Marie Oberle : Lou, this is Marie. In response to your question about third parties, we have such a diverse group of receive sites for our programs that for any given program, we can pick up the telephone and elicit enthusiastic praise for that program. And then the very next phone call could say it's the worst program ever. So this has prompted us to spend a great deal of time. In fact, we've interrogated Doug, regarding what kind of ratings do you apply so that people are not really disappointed in meeting their expectations. We have decided that there isn't any way we can have a rating scale because of so many variables.

The quality is so elusive to all of us. So that what we try to do is state objectively in advance as much information about a program as we can and let them make the decision. And we look at the kinds of things like the percent of descriptive characteristics, the percent of time that is devoted to interaction, the percent of time devoted to pre-recorded tapes, the presenter's credentials, the program format, the target audience, these kinds of things.

And Glen, we hope that it conveys to them sufficiently, whether it is going to

be entertaining or if it's going to be a talking head, because it does make such a difference depending on the audience that is receiving this program.

Glen Southworth : You know, there's the old subjective reaction and I know I have been to an awful lot of meetings as well as teleconferences, and every now and then you get a presenter who is inspirational, practically the old-fashioned revival type.

I think I'd like to point out a few things about a 1974 evaluation of video teleconferencing made by Alan Erickson and one of the things there, it said 95% of those who attended enjoyed their first video teleconference, but felt discomfort sitting in front of their video telephone for the first time. Seventy-three percent of the group were positively challenged by the opportunity to pioneer in video teleconferencing. Twenty-seven percent were more negatively inclined, and considered the experiment an extra burden to their jobs.

In retrospect, 88 of the participants eventually showed the positive attitude toward video teleconferencing, but 12% were still unhappy—they missed additional instructions such as detailed directions for use or specific person to consult at their extension. So, just a little bit of an evaluation report on generic videoconferencing here from the Swedes in years past.

Doug Widner : This is Doug Widner. I can take a stab at answering Lou's question about third parties from two perspectives. One, I have been in the position of being a third party conducting the evaluation and secondly, I have been victimized by third parties coming in and conducting the evaluation.

To do away with the unpleasant second one first, I find, much like Howard, that unless you commission, which is something that I've never done, third party evaluations inevitably manifest themselves as reviews. And the reviews can never take into consideration all of the important elements. Reviews are reviews of the production, let's face it. They are not reviews of how effectively you market it or whether you reach the right people or whether they've learned anything. There are reviews of how well did the program go and did you break any traditional rules of television production.

On the other matter of having been a third party reviewer, this was under commission to a university that will remain nameless, that was in the process of attempting to extend its distance education program beyond satellite classrooms on campus to satellite classrooms throughout the state.

They had, I'm sure as many of our higher education listeners are familiar with, reached that point where they had so many students signing up for the freshman 100 level classes that they had to put cameras in one classroom and point them at the teacher and then show the teacher on closed-circuit television in other classrooms throughout the campus. And the dean of the school was accomplishing this.

The guy that I was interviewing's office happened to be right across the hall from one of the satellite classrooms. And I sat there for about 15 or 20 minutes interviewing him about student acceptance of the satellite classroom

concept. And he was just full of praise and said all the wonderful things this did for students.

One, it allowed them to take courses that otherwise they wouldn't have had. And he pointed out something that I'm sure is valid, and that's students who've missed a class could catch up watching a tape later in a carrel.

Well, it just happened that as our interview broke up, so did a satellite class across the hall. And I found myself leaving the dean's office as students were filing out of the satellite classroom. And I knew that they had been in a satellite class because the dean had me look through the little window in the door to see how the classroom was arranged. So just on a whim, I stopped a student, a young co-ed and said, "I understand you were just in a satellite class. What did you think of it?" And she said, "I'm going to drop as soon as I possibly can." She said, "It's the most boring thing I've ever gone through."

So third party evaluations don't often turn up what you might expect they should. End of story.

Lou Bransford : Doug, another point. I treat unsolicited reviews such as the one you referenced the same way I treat unauthorized biographies.

Laura Randall : Thanks, Lou. Howard, I want to direct the final question at you, if no one else has any questions.

Howard Mevis : I have one question. This is Howard Mevis. A question of Mike Thomsen.

Laura Randall : I'm sorry, Howard. Mike has had to leave us.

Howard Mevis : I guess then I would like the question put out to the group. and that is, the scale that people use, a four-point scale, a five-point scale, a seven-point scale, and what do they find works best? Can anybody answer that at all? Marie, what do you use? At AHA, we use a four-point scale that goes from disagree strongly to disagree to agree to agree strongly on our questions. But I was wondering what others use in terms in their evaluations.

Marie Oberle : Howard, we use from low to high, zero to five.

Howard Mevis : Zero to five? So there are six choices that they make.

Marie Oberle : Right.

Doug Widner : Is Joan Milczarski still with us from AMA?

Joan Milczarski : Hi, Doug. This is Joan.

Doug Widner : Hi. Joan, I know you guys use a different scale.

Joan Milczarski : Well, I'm almost ashamed to admit it, but up through the end of '77, we were using a 20-point scale. Then we switched over to a five-point scale. And now we're down to four. But we're going through an experimental stage, here. We picked up the 20-point scale from what we've been using in the public seminar area and then they switched over, I'm happy to report, to a four-point scale so we're following their lead, but we haven't had

enough experience with it yet to really comment on how it's doing. It's certainly much easier to tabulate the results.

Laura Randall : I want to ask you why you ask that, Howard? Do you think that, in some way, skews results?

Howard Mevis : Well, I just heard opinions regarding scales that don't have a neutral position and I've heard people say that the more numbers, the more difficult. I've heard someone else disagree with that. Someone here in my office believes that you should have a seven-point scale. But I was just trying to get a sense of what the group thought. There're a lot of opinions, I guess. Many, many opinions about scales. Is the four-point scale that we're using correct? Or the best option?

Sally Johnstone : This is Sally Johnstone of the University of Maryland and I did a lot of graduate work in developing scales back in the days when I was in graduate school. And I think the answer to the question of, "Is it correct?" is more, what is it you're trying to do or what is it that you need to measure? And if it's measuring what you need to measure, then a four-point scale or a two-point scale or a 20-point scale is correct.

Laura Randall : That's a very good point, Sally.

Joan Milczarski : Sally, this is Joan Milczarski again. I would just say that I think a 20-point scale does tend to confuse a lot of people. I mean, it looks absolutely enormous, it takes up the entire page, they don't know where to put their pencils. The informal feedback that I've gotten is that people are happier now that we've gone down to a smaller scale.

Sally Johnstone : Something that I have not seen done with evaluating, particularly in teleconferences, but can be very effective in evaluating programs is, instead of using agree, disagree, or some level of continuum, the old Likert scale kind of concept—going instead to a sort of yes, I agree, no, I don't agree checklist concept so that the individual who is making up the scale knows what the objectives are in the teleconference, and can come up with statements. Some statements that conform to the actual goals or objectives of the teleconference, some statements that do not conform, and some that are somewhere in the middle that reflect what the individual experienced in terms of their preferences for what they saw or didn't see, as well as perhaps some of the acquiring of the learning objectives.

And then, instead of having individuals who are essentially trying to figure out well, do I agree with this a little bit or not, the only judgment they're making is a restatement—do they agree or disagree—that's it. And that's a much simpler cognitive process for the individual who is actually taking the test, if you will, or performing the evaluation itself. And you're likely to get very strong kinds of responses and more thoughtful responses.

Marie Oberle : Sally, this is Marie Oberle. Do you run into the problem of a person such as myself—I don't agree or disagree, generally someplace in between?

Sally Johnstone : It's a forced choice. You have to say yes or no. And if it's too strong, that is, if it's "This was the most wonderful teleconference that I've ever seen," then you don't agree with that. If it's one that says, "This was the worst I've ever seen," you don't agree with that either.

Laura Randall : Sally, do you find any trouble collecting those types of evaluations? Because I simply wouldn't turn mine in.

Sally Johnstone : Well, I've never had that problem, but, I've never tried to use it to evaluate a teleconference.

Doug Widner : That's good point, though, Laura. In the design of the so-called happiness sheets that we all use, we do have to think about return. I know, Joan, that that's a concern to you. Statistically, you can give more credit to your sample, the higher the return. If you don't design a sheet that's appealing, simple and returnable, then all of the statistics, whatever results you get become compromised because of the low number of forms that actually get turned in.

Laura Randall : Howard, do you perhaps attribute the return that you get on the sheet itself to the layout of the sheet? Or do you think it's the push that you all put on?

Howard Mevis : I think it's the push. I think, flat out, in the site coordinator's manual, we remind the people there to do the evaluations and collect them, in our site coordinator's update that we transmit 30 minutes before the teleconference, we again remind them of the importance of the evaluation—the last thing that they hear from the program moderator closing the program is, "Fill out the form and return it to your coordinator, so they can send it to us, so that we can we use their information to improve programs and to better target our programs to meet their needs."

And then, when get one of our site coordinators calling us up on the telephone, our network people say, "Hey, have you sent in your most recent evaluation form?"

So it's constantly on our minds to collect those. We're very rigorous about evaluation because we know that if we get that information, we can use that data to improve our programs and better target our programs.

Laura Randall : Are there any other questions? OK, Howard, I'm going to come right back at you for our final question. When you evaluate, I know a lot of people have alluded to this throughout the conference today, are you attempting to find out how well the medium was used or how good the content was? Is it the production that matters to you?

Howard Mevis : As I mentioned a little earlier, I described the different types of questions that we ask on the evaluation form and predominantly the questions deal with the content, the pace and the value of the program. We only have one or two questions that deal with the actual production of the program.

So it's not as important, I would say, to us as the subject matter, but we do an internal evaluation about the program

production quality. I'm a former television producer. I worked in commercial television, I've worked in non-broadcast television and one of the things that I expect of my production department is that they produce high-quality television programs.

One of the things that Glen Southworth said earlier, and I wrote it down is, "You can teach anything if the student is motivated." I agree with that. But I also believe that you have to keep the motivation up. And one of the ways to do that is to have a program that has good pace, good continuity, that uses graphics effectively, that uses pre-taped segments at appropriate times to break up the pace of the program and to add visual stimulus.

We are more and more becoming rooted in television as an entertainment medium—it's been with us now for 40 years and we're used to seeing television in 12-minute or 15-minute or 20-minute bites between commercials. So that our attention span is trained, you might say, by commercial television. When people sit down to watch a teleconference, I think they bring the same viewing values to the program that they do when they watch commercial television.

So pace is real important to us and the use of graphics and pre-taped segments, the way they're structured and the way they're positioned and timed within the program is very important to us. And we look to evaluate those kinds of things. Our programs are not simply, pay up, talk for an hour-and-a-half and then fade out. We want them to have structure, in terms of a television program, and I suspect you'll find others with a very similar feeling and viewpoint.

Laura Randall : Thank you, Howard, that's very important. Doug, I'm going to move to you.

Doug Widner : OK, the direct answer to your question of whether I have in my experience worked with people that evaluate production quality specifically is no. Most of our clients infer their production quality based on the overall satisfactory response. I can't think of any particular question on any evaluation survey form in my memory that says, "Was the production quality poor, medium or good?" or what have you. And for good reason—I'm not very confident that most of the people can articulate their response to such a question.

Most TV viewers are habitual viewers. They respond to things, not necessarily knowing what it is they're responding to, and by forcing them to think about the question, you could come up with an off-the-wall assertion that, to a producer evaluating the evaluation, could steer him wrong or not make sense. That's my personal opinion.

But on the issue of, is production quality important and should it be evaluated, I personally think that's one of the most controversial questions today in business television and television for distance education and videoconferencing. It seems to be a cyclical thing. Back at the turn of the decade, the late 70's and early 80's, we were in a tumult over whether or not we should beef up our production values and hence raise costs or whether we should work on lowering people's expectations and increase penetration. And I see it all coming around again. And it's coming

around because of the proliferation of the small aperture antenna networks and the new uses of satellite-delivered video in the corporate world and I don't have a pat answer to it. Obviously, production quality should be evaluated. I do not believe it can be evaluated by the typical viewer. And I'm not sure that there is a poor, medium, or good scale that can be applied to it.

Howard Mevis : Laura, this is Howard again. I'm not sure if I agree or disagree with Doug in making those comments, but in our evaluation form, we ask questions, and I'm looking at the one for tomorrow's program. "How useful were the visual aids used in this program?," and they were looking at the graphic elements. And then we asked the question about the workbook. "Was the workbook a valuable tool for this teleconference?" We ask a question, "What types of production styles would you like to see in future teleconferences?"

So we're trying to determine exactly what type of quality—and we even ask, "Did you regard this teleconference primarily as a TV program, educational seminar, or other?" So we want to know —we compare it even to a live lecture, "Was today's teleconference as effective as a live lecture, more effective, just as effective, not as effective?" So we try to find some kind of information that get some evaluations from the viewer.

At the same time, we look at production evaluation as being an internal activity of the production department.

Lou Bransford : This is Lou. Howard, responding to your comment, perhaps to Doug's also, what I have found from experience, production value is a very subjective measure. For some people, it's a matter of good color. Others would be looking at something very specific. What I concern myself with in evaluations are not just the production value, but the delivery.

And many times, when you have two uncontrolled variables, you have to look at some other measure to determine, did they like it because the production value was good, at least from their point of view, or because it was delivered well? Or did they not like it because they didn't like the way it sounded or it wasn't a good picture and, not because it was not of quality from the content point of view.

When you have two uncontrolled variables, you add another dimension of evaluation that compounds the problem. And although there are statistical tools to control the multiple variables, for our purposes, particularly with ad hoc teleconferences, you never get them to work.

Laura Randall : Marie, we're running out of time, I'm going to move very quickly to you. Can you respond to that? What does NUTN think, is it the production value or the content or both or neither?

Marie Oberle : We think all of that. In the statistics that I've shared with you, if the presenter really rates high, then there is satisfaction with the program. Doug, we do look at the utilization of the teleconferencing medium and ask that kind of question on our evaluations. Do the members think that we've used the medium effectively? And that's what we strive to do, but we

find that the more of what we call the four "C's" that our originators use, the higher ratings they have. And that is first the compelling need for the program. Second, the compelling presenters. Third, compelling content. And four, compelling production.

Laura Randall: Thank you, Marie. Are there any quick questions or responses to what Marie, Doug, Lou and Howard have said?

Unfortunately, that looks like we're out of time for today's conference. I'd sincerely like to thank all of our discussion leaders for joining us this afternoon. Michael, Marie, Howard, Doug, thank you very much.

As I said at the outset of today's conference, this is indeed the last member audioconference in PSSC's Year of Distance Learning. The staff here at PSSC has found these conferences both enlightening and challenging and we really have enjoyed producing them. So we hope that you have enjoyed them as well.

Once again, I'd like to thank you all very much for joining us this afternoon. Have a good afternoon, and we'll talk to you next year.